LOEWE VV5106/5126H

MODEL

SERVICE MANUAL

SPECIFICATIONS

ITEM	SPECIFICATION	
POWER	SOURCE: 220-240 V AC 50/60 Hz (NV-HD630A/EA, HD675A/EA) 110-240 V AC 50/60 Hz (NV-HD630AM/BD, HD635AM, HD640AM/EU, HD675BD)	
	CONSUMPTION: 18 watts (NV-HD630A, HD675A) 19 watts (NV-HD630EA/BD, HD635AM, HD675EA/BD) 17 watts (NV-HD630AM, HD640AM/EU) CONSUMPTION WHEN IN STANDBY MODE: Approx. 6 watts	
RECORDING SYSTEM	2 rotary heads, helical scanning system	
	PAL/NTSC	
TV TUNER SYSTEM	NV-HD630A, HD675A	VHF: CH0-CH12 (PAL B) UHF: CH28-CH69 (PAL G) CATV: 45 MHz-470 MHz (PAL B) 75 Ω terminated
	NV-HD630EA, HD675EA	VHF: CH1-CH11 (PAL B) UHF: CH21-CH69 (PAL G) CATV: 44 MHz-470 MHz (PAL B) 75 Ω terminated
	NV-HD630AM, HD635AM, HD640AM	VHF: CHC1-CHC12 (PAL/SECAM D) CHE2-CHE12 (PAL/SECAM B) CHR1-CHR12 (SECAM D) UHF: CHC13-CHC57 (PAL/SECAM D) CHE21-CHE69 (PAL/SECAM G, SECAM K, PAL I) CATV: CHZ1-CHZ35 (PAL/SECAM D) CHS1-CHS41 (PAL/SECAM B) 44 MHz-470 MHz (SECAM D) 75 Ω terminated
	NV-HD630BD HD675BD	VHF: CHC1-CHC12 (PAL/SECAM D) CHE2-CHE12 (PAL/SECAM B) CHR1-CHR12 (SECAM D) CH2-CH13 (NTSC M: USA) CH1-CH12 (NTSC M: JAP) UHF: CHC13-CHC57 (PAL/SECAM D) CHE21-CHE69 (PAL/SECAM G, SECAM K, PAL I) CH14-CH79 (NTSC M: USA) CH13-CH62 (NTSC M: JAP) CATV: CHZ1-CHZ35 (PAL/SECAM D) CHS1-CHS41 (PAL/SECAM B) 44 MHz-470 MHz (SECAM D) CH5A-CH125 (NTSC M: USA) CHC13-CHC63 (NTSC M: JAP) 75 Ω terminated
	NV-HD640EU	VHF: CHE2-CHE12 (PAL/SECAM B) CHR1-CHR12 (SECAM D) UHF: CHE21-CHE69 (PAL/SECAM G, SECAM K, PAL I) CATV: CHS1-CHS41 (PAL/SECAM B) 44 MHz-470 MHz (SECAM D) 75 Ω terminated
RF OUT SYSTEM	NV-HD630A, HD675A	UHF: CH28-CH69 (PAL G) 71 ± 3 dBμ, 75 Ω terminated
	NV-HD630EA, HD675EA	UHF: CH21-CH69 (PAL G) 71 ± 3 dBμ, 75 Ω terminated
	NV-HD630AM/BD, HD635AM, HD640AM/EU, HD675BD	UHF: CHE21-CHE69 (PAL/SECAM G, SECAM K, PAL I) 71 ± 3 dBμ, 75 Ω terminated

ITEM	SPECIFICATION	
VIDEO	HEADS:	4 rotary heads 1 pair for recording and playback (L-R heads) 1 pair for trick play (L'-R' heads)
	INPUT:	VIDEO IN (AV1) Connector (Phono type) 1.0Vp-p, 75 Ω terminated (NV-HD630A/EA/AM/BD, HD635AM, HD675A/EA/BD) EURO AV (AV1) Connector (21 pin) 1.0 Vp-p, 75 Ω terminated (NV-HD640AM/EU) VIDEO IN (AV2) Connector (Phono type) 1.0 Vp-p, 75 Ω terminated
	OUTPUT:	VIDEO OUT (AV1) Connector (Phono type) 1.0 Vp-p, 75 Ω terminated EURO AV (AV1) Connector (21 pin) 1.0 Vp-p, 75 Ω terminated (NV-HD640AM/EU)
AUDIO	HEAD:	1 Stationary head (Normal-mono only) 2 channels (Hi-Fi Sound-Stereo)
	INPUT:	AUDIO IN (AV1) Connector (Phono type) More than -6 dBV (500 mV), 47 kΩ (NV-HD630A/EA/AM/BD, HD635AM, HD675A/EA/BD) EURO AV (AV1) Connector (21 pin) More than -6 dBV (500 mV), 10 kΩ (NV-HD640AM/EU) AUDIO IN (AV2) Connector (Phono type) More than -6 dBV (500 mV), 47 kΩ
	OUTPUT:	AUDIO OUT (AV1) Connector (Phono type) -6 dBV (500mV), Less than 1 kΩ EURO AV (AV1) Connector (21 pin) -6 dBV (500mV), Less than 1 kΩ (NV-HD640AM/EU)
TAPE SPEED	SP: 23.39 mm/s (PAL), 33.35 mm/s (NTSC) LP: 11.695 mm/s (PAL), 11.12 mm/s (NTSC) Record/Playback Time: SP: 4 hours with 240 min. type tape LP: 8 hours with 240 min. type tape FF/REW Time: 60 sec. with 180 min. type tape	
OPERATING TEMPERATURE	5°C - 40°C	
OPERATING HUMIDITY	35% - 80%	
DIMENSIONS	430 (W)×87 (H)×300 (D) mm (NV-HD630A/EA/AM/BD, HD635AM, HD640AM/EU) 430 (W)×87 (H)×310 (D) mm (NV-HD675A/EA/BD)	
WEIGHT	3.9 kg	
STANDARD ACCESSORIES	1 pc. DIN-RF Cable 1 pc. AC Mains Lead 1 pc. Infra-res Remote Controller 1 pc. AV Cable 1 pc. AC Plug Adaptor (NV-HD630AM)	

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.

⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

CONTENTS

Page

1 INTRODUCTION ········· **4**

2 GENERAL DESCRIPTIONS ········· **5**

- 2.1. SERVICE INFORMATION ········· 5
- 2.2. REMOVAL OF CASSETTE TAPE ········· 8
- 2.3. INTRODUCTION OF VIDEO HEAD CLEANING CASSETTE(POLISHING TYPE) ········· 8

3 OPERATING INSTRUCTIONS ········· **9**

4 ADJUSTMENT PROCEDURES ········· **28**

- 4.1. DISASSEMBLY METHOD ········· 28
- 4.2. MECHANICAL ADJUSTMENT PROCEDURES ········· 30
- 4.3. ELECTRICAL ADJUSTMENT PROCEDURES ········· 30

5 ABBREVIATIONS ········· **31**

6 INPUT/OUTPUT CHART ········· **35**

- 6.1. INPUT/OUTPUT CHART FOR IC6007 ········· 35

7 WAVEFORM TABLE ········· **38**

8 BLOCK DIAGRAMS ········· **41**

- 8.1. TIMER BLOCK DIAGRAM ········· 41
- 8.2. SYSTEM CONTROL & SERVO BLOCK DIAGRAM ········· 42
- 8.3. AUDIO BLOCK DIAGRAMS ········· 43
- 8.4. LUMINANCE & CHROMINANCE BLOCK DIAGRAM ········· 44

9 SCHEMATIC DIAGRAMS ········· **47**

- 9.1. POWER SCHEMATIC DIAGRAM ········· 47
- 9.2. POWER SUPPLY/RF SECTION IN MAIN SCHEMATIC DIAGRAM ········· 48
- 9.3. TIMER SECTION IN MAIN SCHEMATIC DIAGRAM ········· 49
- 9.4. SYSTEM CONTROL & SERVO SECTION IN MAIN SCHEMATIC DIAGRAM ········· 50
- 9.5. LUMINANCE & CHROMINANCE/AUDIO SECTION IN MAIN SCHEMATIC DIAGRAM ········· 52
- 9.6. HEAD AMP SCHEMATIC DIAGRAM ········· 55
- 9.7. JOG/SHUTTLE SCHEMATIC DIAGRAM (NV-HD675A/EA/BD) ········· 56
- 9.8. FRONT JACK SCHEMATIC DIAGRAM ········· 56
- 9.9. CYLINDER STATOR UNIT SCHEMATIC DIAGRAM ········· 56
- 9.10. TV DEMODULATOR PACK SCHEMATIC DIAGRAM (NV-HD630BD, HD675BD) ········· 57
- 9.11. DECODER PACK SCHEMATIC DIAGRAM (NV-HD630A, HD675A) ········· 58
- 9.12. NICAM DECODER PACK SCHEMATIC DIAGRAM (NV-HD630EA/BD, HD635AM, HD675EA/BD) ········· 59
- 9.13. CAPSTAN UNIT SCHEMATIC DIAGRAM ········· 60

10 CIRCUIT BOARD ASSEMBLIES ········· **61**

- 10.1. POWER C.B.A. ········· 61
- 10.2. JOG/SHUTTLE C.B.A. (NV-HD675A/EA/BD) ········· 61
- 10.3. MAIN C.B.A. ········· 62
- 10.4. HEAD AMP C.B.A. ········· 63
- 10.5. FRONT JACK C.B.A. ········· 63
- 10.6. CYLINDER MOTOR UNIT ········· 63
- 10.7. TV DEMODULATOR PACK C.B.A. (NV-HD630BD, 675BD) ········· 63
- 10.8. DECODER PACK C.B.A. (NV-HD630A, HD675A) ········· 64
- 10.9. NICAM DECODER PACK C.B.A. (NV-HD630EA/BD, HD635AM, HD675EA/BD) ········· 64

11 EXPLODED VIEWS & MECHANICAL REPLACEMENT PARTS LIST ········· **65**

- 11.1. CHASSIS PARTS SECTION ········· 65
- 11.2. CASING PARTS SECTION ········· 66
- 11.3. PACKING PARTS SECTION ········· 67

12 ELECTRICAL REPLACEMENT PARTS LIST ········· **69**

1 INTRODUCTION

This service manual contains technical information which will allow service personnel to understand and service this model.

If the circuit is changed or modified, this information will be followed by supplementary service manual to be filed with original service manual.

Note:

1. Adjustment procedures, Disassembly Procedures and Assembly Procedures for Mechanism Chassis are separate volume from this service manual.
   Please refer to the service manual for Z-Mechanism Chassis. (Order No. VRD9802005C2)
2. The following Indication Mark on the Schematic Diagrams and Circuit Board Diagrams shows the Model No.

Model No.	Indication Mark
NV-HD630A	(A)
NV-HD630EA	(B)
NV-HD630AM	(C)
NV-HD630BD	(D)
NV-HD635AM	(E)
NV-HD640AM/EU	(F)
NV-HD675A	(G)
NV-HD675EA	(H)
NV-HD675BD	(I)

2 GENERAL DESCRIPTIONS

2 1. SERVICE INFORMATION

2 1.1. MICROPROCESSOR RESET AND INITIALZATION

When replacing the Microprocessor IC6007 and/or Back-up Battery B6001, the Microprocessor IC6007 has to be reset and initialized.

Method:

1. Turn on the VCR after replacing.
2. Connect a jumper wire between TL7509 and TL7510 for 1 second to reset the Microprocessor.
3. Press the CH UP/DOWN button until the channel indicator indicates "3".
4. Connect a jumper wire twice between TL7515 and TL7516 to initialize the Microprocessor.
   (Channel indication changes from "3" to "1".)
5. Perform the PG SHIFTER ADJUSTMENT.
   (Refer to the Electrical Adjustment Procedures on page 30.)

Note:

1. It should be performed before tuning.
2. Do not cut off the power source during reset and initialization.

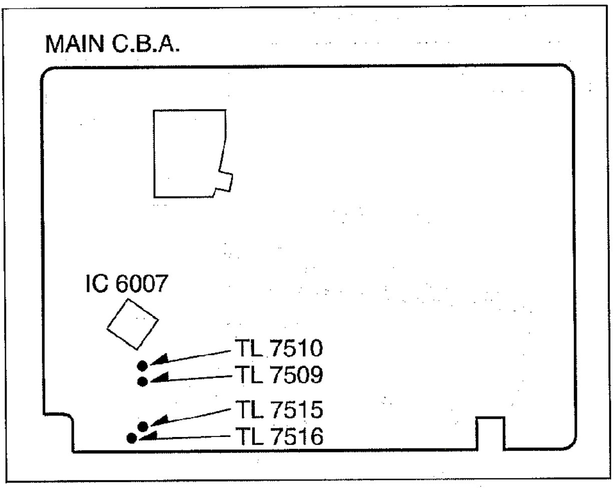

MAIN C.B.A.
IC 6007
TL 7510
TL 7509
TL 7515
TL 7516

Fig.s1

2.1.2. CHECKING OF MAIN C.B.A.

When servicing the MAIN C.B.A., take out the MAIN C.B.A. and mechanism from the frame and turn over.

And then connect the Extension Cable (VFK2744) between the POWER C.B.A. connector (P1102) and the MAIN C.B.A. connector (P1001) as shown in Fig.S2.

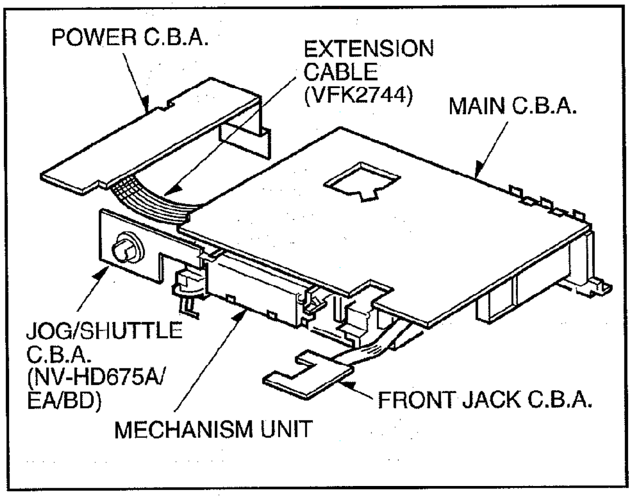

POWER C.B.A.
EXTENSION CABLE (VFK2744)
MAIN C.B.A.
JOG/SHUTTLE C.B.A. (NV-HD675A/ EA/BD)
MECHANISM UNIT
FRONT JACK C.B.A.

Fig. S2

2.1.3. CYLINDER UNIT REPLACEMENT

1. CYLINDER UINT REPLACEMENT
   a. Remove the 3 Screws (A) of the CLINDER UNIT with a magnetized screw driver.

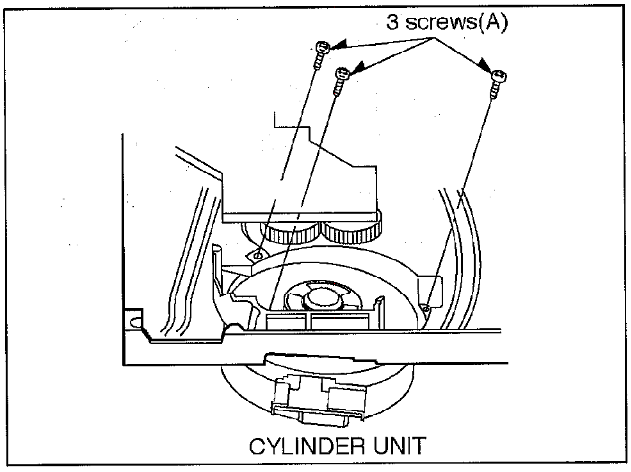

3 screws(A)
CYLINDER UNIT

Fig. S3

2. UPPER CYLINDER DISASSEMBLY

a. Remove 2 screws (A).

b. Remove the Cylinder Stator Unit.

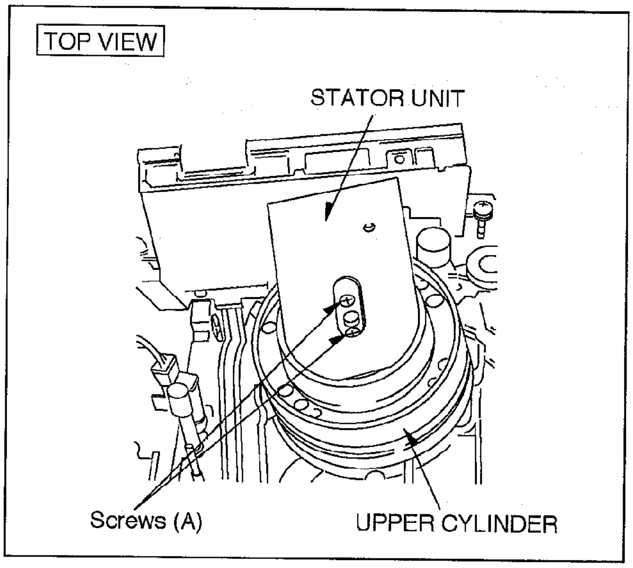

TOP VIEW
STATOR UNIT
Screws (A)
UPPER CYLINDER

Fig. S4

c. Remove 2 screws (B).

d. Remove the Cylinder Rotor Unit.

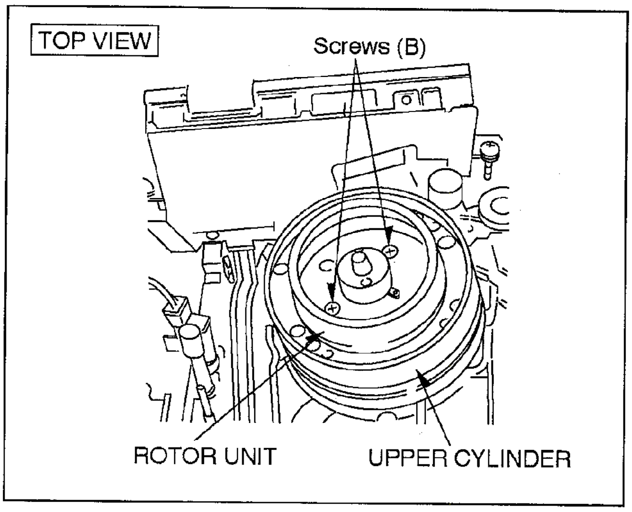

TOP VIEW
Screws (B)
ROTOR UNIT
UPPER CYLINDER

Fig. S5

e. Loose hex screw (C) (1.5mm) and remove the Cylinder Retainer.

f. Remove the Upper Cylinder.

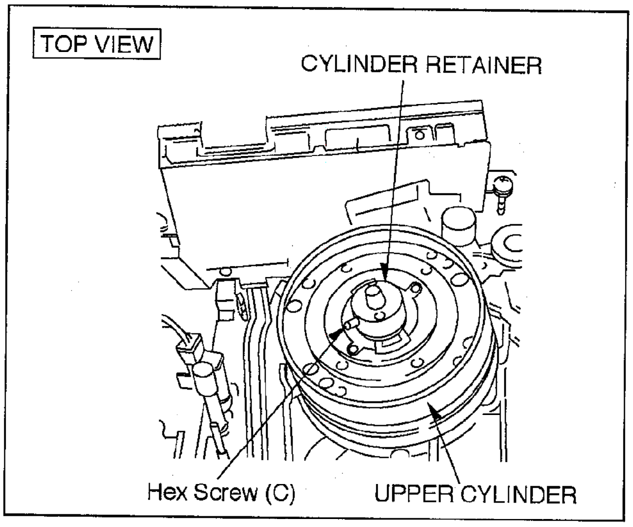

TOP VIEW
CYLINDER RETAINER
Hex Screw (C)
UPPER CYLINDER

Fig. S6

3. UPPER CYLINDER ASSEMBLY

a. Install the Cylinder Retainer so that the 2 holes on top of the Cylinder Retainer are at right angles with the Head Amp Shield.

b. Tighten the hex screw (C) (1.5mm) while pressing down on top of the Cylinder Retainer.

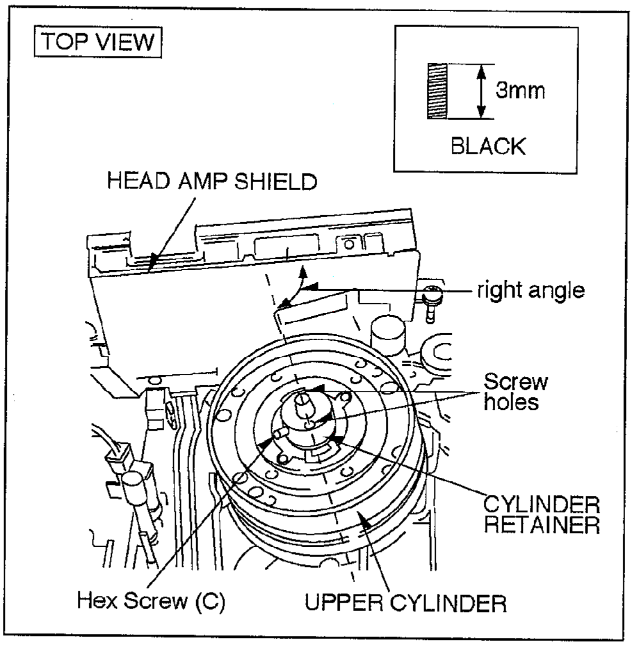

TOP VIEW
3mm
BLACK
HEAD AMP SHIELD
right angle
Screw holes
CYLINDER RETAINER
Hex Screw (C)
UPPER CYLINDER

Fig. S7

c. Install the Cylinder Rotor Unit so that the inner hole of the Cylinder Rotor Unit fits to the small projection (D) on top of the Upper Cylinder.

d. Tighten 2 screws (B).

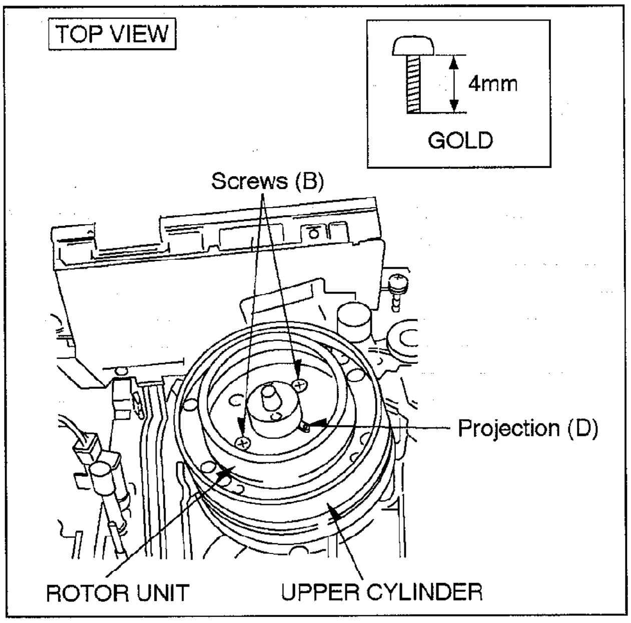

TOP VIEW
4mm
GOLD
Screws (B)
Projection (D)
ROTOR UNIT
UPPER CYLINDER

Fig. S8

e. Install the Cylinder Stator Unit so that the rear side of the Cylinder Stator C.B.A. is parallel with the Head Amp Shield.

f. Tighten 2 screws (A).

g. Confirm the PG SHIFTER ADJUSTMENT with the alignment tape (PAL: VFJ8125H3F/NTSC: VFM8080HQFP) and adjust it if necessary.

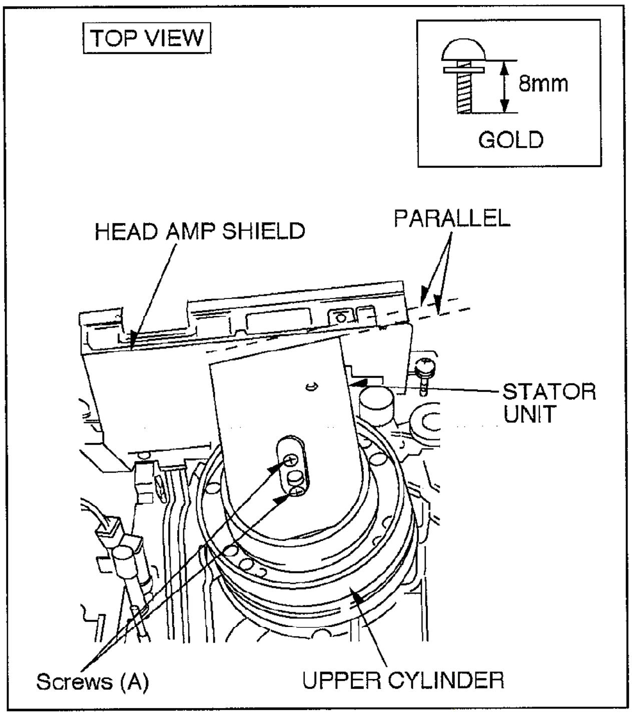

TOP VIEW
8mm
GOLD
HEAD AMP SHIELD
PARALLEL
STATOR UNIT
Screws (A)
UPPER CYLINDER

Fig. S9

2.1.4. FLAT CARD CABLE INSTALLATION

When installing the Flat Card Cable on the connector, install the Flat Card Cable with the cable contacts facing the connector contacts.

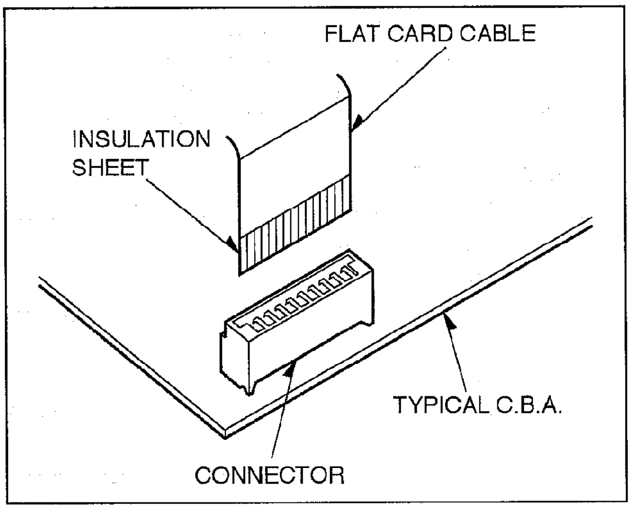

FLAT CARD CABLE
INSULATION SHEET
TYPICAL C.B.A.
CONNECTOR

Fig.S10

2.2. REMOVAL OF CASSETTE TAPE

There are 2 ways to remove a cassette tape.

1. Service Information Display Operation
   a. Press the FF and EJECT keys simultaneosly for 3 seconds and set the Service Mode 7.
   (NV-HD630A/EA/AM/BD, HD635AM, HD640AM/EU)
   Turn the Shuttle Ring to FF and press EJECT key simultaneosly for 3 seconds and set the Service Mode 7.
   (NV-HD675A/EA/BD)
   b. Press STOP key in order to rotate the Loading Motor for unloading operation. (Pay an attention of tape slack)
2. Manual Operation
   a. Disconnect the AC Mains Lead and remove the Top Panel.
   b. Rotate the Main Cam Gear clockwise until the Loading Posts move to fully unloaded position as shown in Fig.S11. (Tape is remaining)

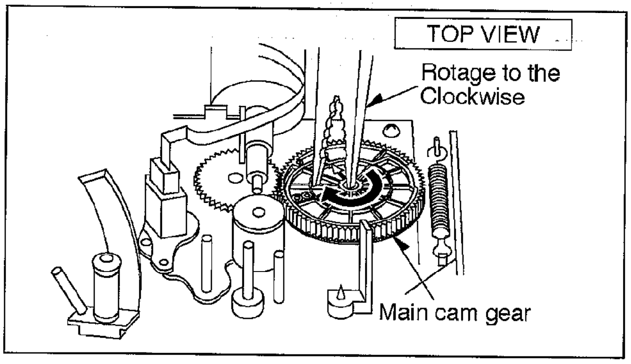


Fig. S11

   c. Rotate the Capstan Motor clockwise from the bottom side to take up the tape.

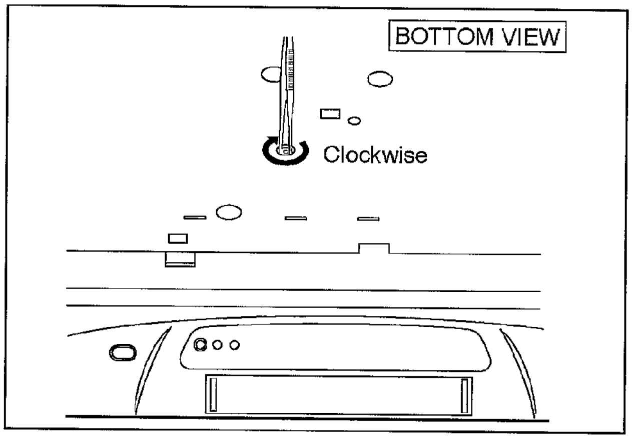


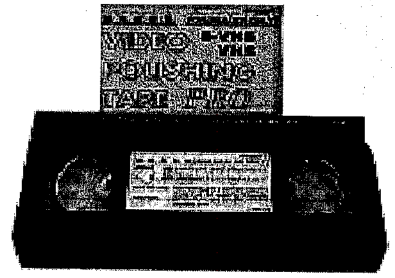
Fig. S12

   d. Rotate the Main Cam Gear clockwise until the cassette tape is ejected.

2.3. INTRODUCTION OF VIDEO HEAD CLEANING CASSETTE (POLISHING TYPE)

1. We are pleased to introduce Panasonic Video Head Cleaning Cassette, **VFK0923FT** [for sevice purposes] and **VFK0923FSE** [for end users] for all VHS/SVHS VCP and VCR.
2. These cleaning cassettes are exclusive removing the hard and sticky clogging on video heads.
3. These improve the efficiency of video head cleaning service and shortening cleaning time for end users.

VFK0923FT(For Service usage)	
Type of Cassette	Full VHS Cassette
Cleaning Time	10 Seconds/Time
Tape Length	20 m
Usability in a Path	180 Times



VFK0823FSE(For end users)	
Type of Cassette	Full VHS Cassette
Cleaning Time	10 Seconds/Time
Tape Length	3.34 m
Usability in a Path	30 Times

Panasonic
PRO
30

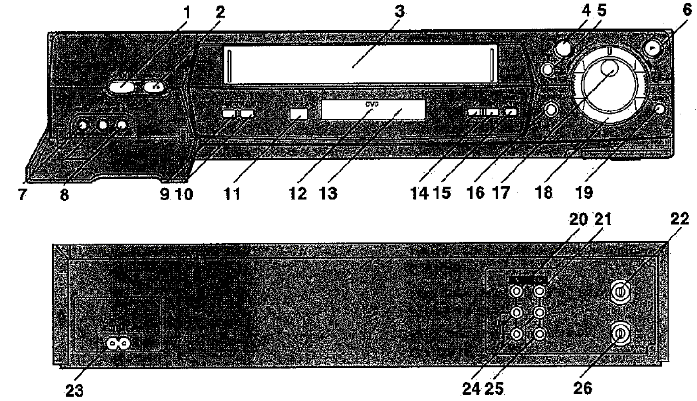
Note:

The tape material itself is the same in both types.

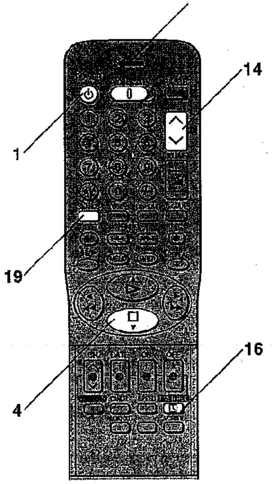
3 OPERATING INSTRUCTIONS

Controls and Connection Sockets

This section describes in detail the function of each button, switch and connection socket.



Set VCR—TV switch to **VCR** for using **POWER** ⏻ and the ∨ and ∧ buttons.



FRONT

1 **POWER ⏻/I (POWER ⏻)**
Press to switch the VCR from on to standby mode or vice versa. In standby mode, the VCR is still connected to the mains.

Set VCR—TV switch to **VCR** for using **POWER** ⏻ of remote controller.

2 **▲ EJECT**
Ejects a video cassette.

3 **Cassette Compartment**
Insert a video cassette here.

4 **STOP ■ (□)**
Stops playback or recording.
Ejects the video cassette.

5 **PAUSE/STILL ❚❚**
In the stop mode: Still picture (Jog/Shuttle mode).
During playback:
- By pressing: Still picture. "▯▯" is lit (Jog/Shuttle mode).
- By pressing for 2 seconds or more:
  Slow playback. "▯▷" is lit.

During recording: Interrupts recording.

6 **PLAY/OFF ⏲ ▶**
Starts playback. "▷" is lit.
For the Play-Off Timer function.

7 **VIDEO IN (AV2)**
Connects a video cable from a movie camera or another unit.

8 **AUDIO IN (AV2)**
Connects an audio cable from a movie camera or another unit.

9 **INSERT**
Sets up the VCR for insert editing.
INSERT is appeared on screen display.

10 **A.DUB**
Sets up the VCR for audio dubbing.
A.DUB is appeared on screen display.

11 **Infra-red Remote Control Receiver Window**

12 **CVC (Crystal View Control) Indicator**
This indicator is lit when the VCR is on.

13 **Display**

14 **∨∧**
Selects the required programme position (TV station) of the VCR.

For tracking adjustment and vertical locking adjustment.
- For manual tracking adjustment
  The ∨ and ∧ buttons are used to adjust the tracking when, for example, noise bars on the picture during normal playback are better removed manually than by automatic digital tracking control. To return to automatic digital tracking control, press both buttons together.
- For slow tracking adjustment
  When noise bars appear during still or slow playback, switch over to slow playback and adjust with the ∨ or ∧ button to reduce the noise bars.
- For vertical locking adjustment
  Use the ∨ and ∧ buttons to minimize any vertical jitter during still picture playback.

Set VCR—TV switch to **VCR** for using the ∨ and ∧ buttons of remote controller.

15 **● REC/OTR**
Starts recording.
For One-Touch Recording (OTR).

16 **TIMER REC ⏲**
Turns the timer recording function on and off.
⏲ is lit or not lit.
Once you operate the timer recording function, normal VCR operation is not possible unless you press this button again and release the VCR from the timer recording standby mode.

17 **Jog Dial**
Locates any desired frame with utmost precision.

18 **Shuttle Ring**
In the stop mode:
Rewinds or fast forwards the tape.
In the playback mode:
Searches picture backward or forward.
In the still playback mode:
Adjusts playback speed backward or forward.

19 **SEARCH**
Searches a recorded programme using the programme list search after timer recording and using the intro-jet scan functions.

REAR

20 **VIDEO IN (AV1)**
Connects a video cable from a movie camera or another unit.

21 **VIDEO OUT**
Connects a video cable to a TV or another unit.

22 **RF IN**
Connects the external aerial.

23 **AC IN**
Connects the main power supply.

24 **AUDIO IN (AV1)**
Connects an audio cable from a movie camera or another unit.

25 **AUDIO OUT**
Connects an audio cable to a TV or another unit.

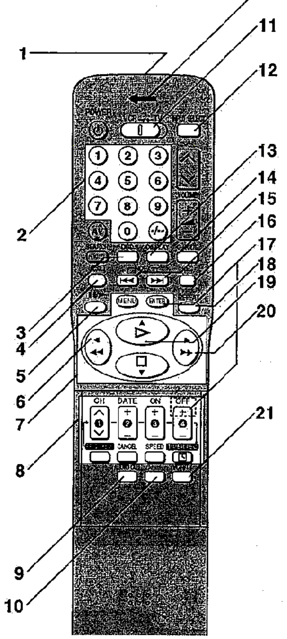
26 **RF OUT**
Connects the aerial terminal on a TV.

Infra-red Remote Controller

The remote control unit for this VCR is a universal remote controller. As such, some of its buttons are not used to operate this VCR.

VCR OPERATION

Set **VCR—TV** switch to **VCR** for using the **numeric buttons** and the **G-CODE** button.



1 Infra-red Transmitter

2 Numeric Buttons
Selects programme positions (1–99) of the VCR.
- Ensure that **VCR—TV** switch is set to **VCR**.

9: ⑨
19: ⊕→①→⑨

Programmes G-Code numbers.
- Ensure that **VCR—TV** switch is set to **VCR**.

3 OSD
For the On Screen Display Function.

4 RESET
Resets the tape counter (elapsed time) to "0:00.00".
- The tape counter is automatically reset to "0:00.00" when a video cassette is inserted.

5 ▮▮/▶ (PAUSE/SLOW)
During playback:
- By pressing: Still picture. "▯▯" is lit.
- By pressing for 2 seconds or more: Slow playback. "▯▷" is lit.

During recording: Interrupts recording.

6 ◀◀ (REWIND)

In the stop mode:	Rewinds the tape.
In the playback mode:	Searches back.
In the rewind mode:	Obtains high speed picture.

"◁◁" is lit.

7 On Screen Display Menu Operation Buttons

MENU:
Makes the on screen display main menu appear on the TV screen.

ENTER:
Confirms the selection, or stores.

▲▼◀▶:
Makes selections from the on screen display.
- These buttons can also be used for playback, stop, rewind and fast forward mode.

8 Timer Recording Operation Buttons

CH, DATE, ON, OFF:
Programmes a timer recording.

PROG./CHECK:
Sets and checks timer programmes.

CANCEL:
Cancels the settings made for timer recording.

SPEED:
Selects the desired tape speed for recording.
"SP" gives the best picture quality.
"LP (EP)" gives the longest recording time.
- The indicator (SP, LP or EP) corresponding to the selected tape speed now appears on the VCR display or on screen display.

LP: This appears when PAL/MESECAM signals are input or output.
EP: This appears when NTSC signals are input or output.

TIMER REC ⊡:
Turns the timer recording function on and off.
⊡ is lit or not lit.
Once you operate the timer recording function, normal VCR operation is not possible unless you press this button again and release the VCR from the timer recording standby mode.

9 AUDIO OUT
Selects the desired sound mode.
At the every push of this button, the audio output mode changes as follows.
During playback:
→Stereo→L→R→Normal audio track→

While the broadcast signals are being received:
→Stereo→L→R→

The Left (L) and Right (R) indicators show which sound mode is selected as follows on the On Screen Display.

Stereo:	Both the L and R indicators appear.
L:	The L indicator appears.
R:	The R indicator appears.
Normal:	Neither the L nor R indicator appears.

10 No function.
This button is not used to operate this VCR.

11 VCR—TV switch

VCR:	Selects the VCR operation mode.
TV:	Selects the TV operation mode.

12 INPUT SELECT
Selects the A1 or A2 external recording source.

13 DISPLAY
Changes the indication on the VCR display as follows.

→Clock→Counter→Remaining Tape Time→

During OTR or Play-Off Timer, changes the indication on the VCR display as follows.

→OTR or Play-Off Timer Display→Clock→Remaining Tape Time←Counter←

14 G-CODE
Used for G-Code programming.
- Ensure that **VCR—TV** switch is set to **VCR**.

15 INDEX ⏮, ⏭
Used for the index search function.

16 REC ●
Starts recording.

17 Child Lock Function Buttons

ENTER, OFF (+):
Deactivates all buttons on the VCR and the remote control by holding down **ENTER** and **OFF (+)** simultaneously until the "▷◁ hold" indication appears in the VCR display.

18 REPEAT
For the repeat playback function.

19 ▷ (PLAY)
Starts playback. "▷" is lit.

20 ▶▶ (FAST FORWARD)

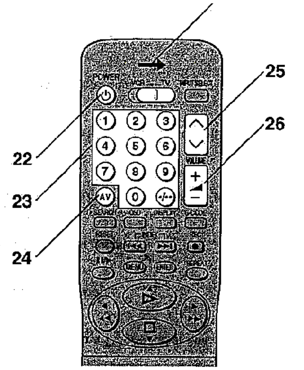
In the stop mode:	Fast forwards the tape.
In the playback mode:	Searches forward.
In the fast forward mode:	Obtains high speed picture.

"▷▷" is lit.

21 VCR/TV
This button is not used to operate this VCR.

TV OPERATION

Set VCR—TV switch to TV for using **POWER ⏻**, the ∨ and ∧ buttons and the **numeric buttons**.



22 POWER ⏻
Press to switch the TV from on to standby mode or vice versa. In standby mode, the TV is still connected to the mains.
- With some TV models, it may only be possible to switch the TV to the standby mode using this button. In this case, use **AV** or the ∨ and ∧ buttons to switch the TV on.
- Ensure that **VCR—TV** switch is set to **TV**.

23 Numeric Buttons
Selects programme positions (1–99) of the TV.
- Ensure that **VCR—TV** switch is set to **TV**.

24 AV
Selects TV input or AV input.

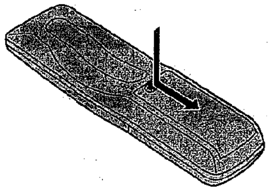
25 ∨ ∧
Selects the required programme position (TV station) of the TV.
- Ensure that **VCR—TV** switch is set to **TV**.

26 VOLUME – ◢ +
Adjusts the volume of the TV.

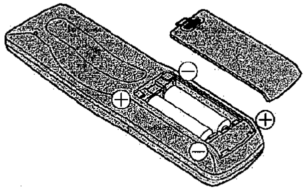
Remote Controller Setup

Installing the Batteries

1 To remove the cover, slide it in the direction of the arrow while pressing down.



2 Load the batteries with their polarity (⊕ and ⊖) aligned correctly.



3 Slide the cover back on.

Power Source for the Remote Controller
The remote controller is powered by 2 "AA", "UM3" or "R6" size batteries. The life of the batteries is about one year, although this depends on the frequency of use.

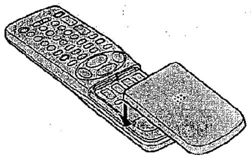
Precautions for Battery Replacement

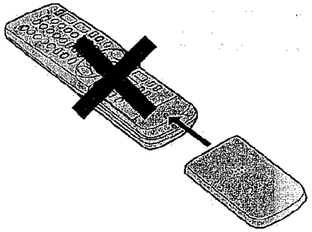
- Load the new batteries with their polarity (⊕ and ⊖) aligned correctly.
- Do not apply heat to the batteries, or an internal short circuit may occur.
- If you do not intend to use the remote controller for a long period of time, remove the batteries and store them in a cool and dry place.
- Remove spent batteries immediately and dispose of them.
- Do not use an old and a new battery together, and never use an alkaline battery with a manganese battery.
- Do not use rechargeable batteries.

If the Sliding Cover of the Remote Controller becomes Detached

If the sliding cover of remote controller becomes detached by mistake, fit it securely in place by putting it on top of the remote controller and pushing it down until it clicks into position, as shown in the figure below.

- It is not possible to fit the sliding cover in place by pushing it from the bottom end of the remote controller. Do not attempt to do this.





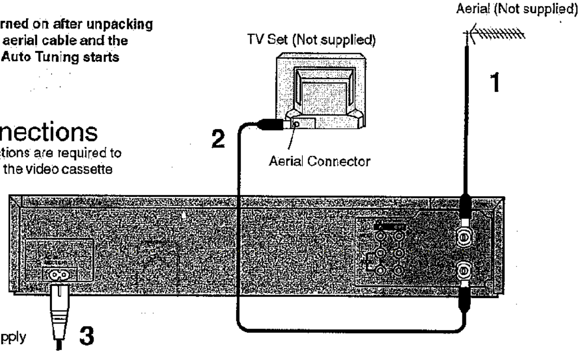
Connections

This section shows you how to connect the VCR to an aerial, TV, etc.

When the VCR is turned on after unpacking and connecting the aerial cable and the mains lead, Plug in Auto Tuning starts automatically. (NV-HD675EA only)

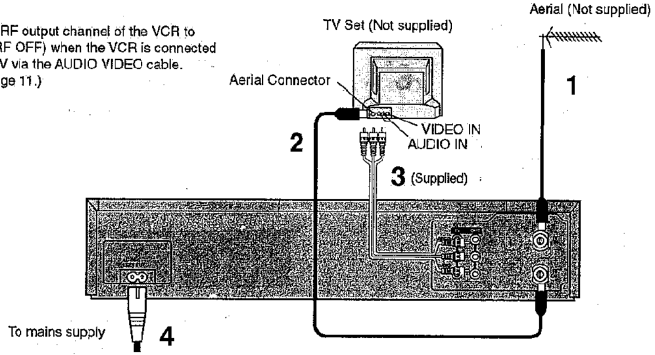
Basic Connections

The following connections are required to record and play back the video cassette through the TV.

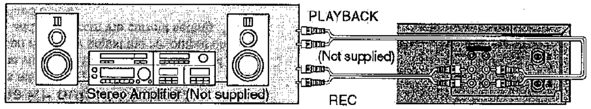

Aerial (Not supplied)
TV Set (Not supplied)
1
2
Aerial Connector
To mains supply
3

Connection to a TV using the Audio/Video Input Sockets

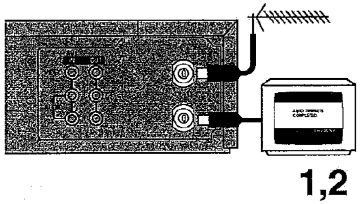
Set the RF output channel of the VCR to "– –" (RF OFF) when the VCR is connected to the TV via the AUDIO VIDEO cable. (See page 11.)


Aerial (Not supplied)
TV Set (Not supplied)
Aerial Connector
1
2
VIDEO IN
AUDIO IN
3 (Supplied)
To mains supply
4

Connection to a Stereo Amplifier


PLAYBACK
(Not supplied)
REC
Stereo Amplifier (Not supplied)

Tuning the TV to your VCR

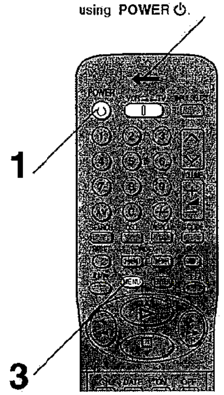


The VCR supplies a signal to the TV via the RF coaxial cable on channel AU28-69, or NZ21-69.
It is possible to view the video picture on your TV in the same way that you watch TV broadcasts.
If you have connected the VCR to the TV through the video and audio input sockets, then you do not need to follow the procedure below.

When the VCR is turned on after unpacking and connecting the aerial cable and the mains lead, Plug in Auto Tuning starts automatically. (NV-HD675EA only)

Notes:
- If the VCR is turned on with the aerial not connected, all channels are skipped. Therefore, firmly connect the aerial and then turn the VCR off and on again to execute Auto Tuning.
- When Auto Tuning is cancelled halfway, Auto Tuning is not executed even if the VCR is turned off and then turned on again. In this case, see page 12 **"To restart Plug in Auto Tuning"**. (NV-HD675EA only)

Set **VCR—TV** switch to **VCR** for using **POWER** ⏻.

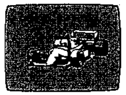


Operations

1 POWER ⏻

Turn on the TV and the VCR.

2 For NV-HD675A



For NV-HD675EA

(During Plug in Auto Tuning)

On Screen Display

(After Plug in Auto Tuning)

Set the TV to an unused position which you wish to use for your video playback.

For NV-HD675A
- Tune the TV until the TV programme screen appears. (Please refer to the TV manufacturers operating instructions regarding tuning.)

For NV-HD675EA
- Tune the TV until the display shown on the left appears on the screen. (Please refer to the TV manufacturers operating instructions regarding tuning.)

3 MENU

Press **MENU**.
- This operation is not necessary for NV-HD675A.

To Change the RF output Channel

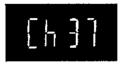
In some rare cases after tuning the TV to your VCR, interference may be visible on the picture. To get rid of this interference, you can manually adjust the RF output channel a few channels up and down from the current setting. The procedure is described below.

Operations

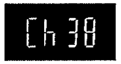
1 Hold down **MENU** for 5 seconds or more.
- The VCR display changes as shown below and the VCR picture on the TV displays this pattern.

MENU

Example for NV-HD675A



Example for NV-HD675EA



2 Enter the desired channel number (AU28-69, NZ21-69) by using the **numeric buttons** or the ∨ and ∧ buttons.
- Ensure that **VCR—TV** switch is set to **VCR**.
- Set the RF output channel of the VCR to "– –" (RF OFF) when the VCR is connected to the TV via the AUDIO VIDEO cable.
  Press the ∨ and ∧ buttons to display "– –".

For NV-HD675A
→28←···→69←
(RF OFF)

For NV-HD675EA
→21←···→69←
(RF OFF)

Example:
28: -/-- → ② → ⑧

∧ ∨

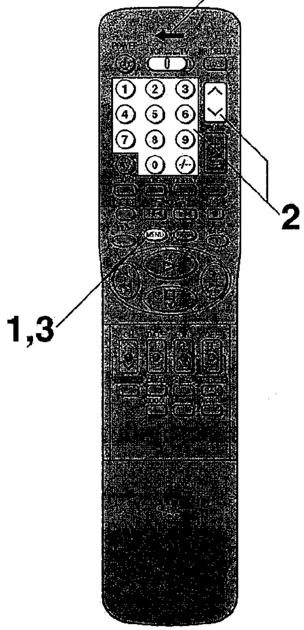
3 Press **MENU** to finish the setting mode.

MENU

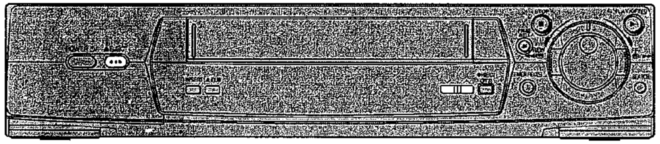
4 Retune your TV to the new RF channel for the VCR.

Note:
Even if the RF output channel has been changed, it is not necessary to perform Auto Tuning.

Set **VCR—TV** switch to **VCR** for using the **numeric buttons** or the ∨ and ∧ buttons.



Storing TV Broadcasts in your VCR



The VCR is fitted with its own tuner (just like a normal TV) and can be preset to receive up to 99 TV broadcast stations.

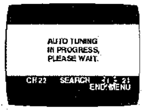
Pre-programmed TV Channels (NV-HD675A only)

The local TV broadcast channels 2, 7, 9, 10 and 28 are factory-preset in this VCR.
That is, if you can receive television broadcasts on VHF channels 2, 7, 9, 10 and UHF channel 28, these are already tuned on the programme positions with the matching numbers. However, it is possible to cancel these settings and tune the local TV broadcast channels to any desired programme position.
For alternative settings and tuning of additional TV broadcast channels, follow the Tuning Operations.

Plug in Auto Tuning (NV-HD675EA only)

When the VCR is turned on after connecting the aerial cable and the mains lead, Auto Tuning starts.

On Screen Display


AUTO TUNING
IN PROGRESS,
PLEASE WAIT.
CH 22 SEARCH 21 : 21
END:MENU

Auto Tuning searches for TV stations from VHF minimum to UHF maximum and memorizes every tuned programme position.

- If you turn the VCR off during Auto Tuning, Auto Tuning will stop halfway.
- If the VCR starts playback during Auto Tuning, Auto Tuning will stop halfway.

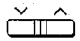
To Cancel Auto Tuning Mid-Operation:

Press **MENU** during Auto Tuning. Auto Tuning is cancelled.

To restart Plug in Auto Tuning:

If Auto Tuning is cancelled by pressing MENU:

1 Press ⏏ **EJECT** and remove the video cassette.
2 Keep the ∨ and ∧ buttons on the VCR pressed simultaneously for 3 seconds or more during the VCR on.



- The channel displayed on the VCR display disappears for a moment then changes to 1.

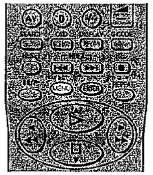
Display Symbol

Disappears→1

3 Disconnect the mains lead and then reconnect it.
4 Turn off the VCR and then turn it on.
   - Auto Tuning commences.

If Auto Tuning stops halfway by turning the VCR off, playback or a power failure:

1 Disconnect the mains lead and then reconnect it.
2 Turn off the VCR and then turn it on.
   - Auto Tuning commences.



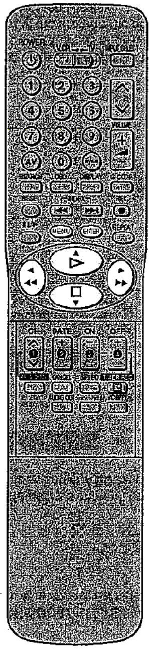
Auto Tuning Using the On Screen Display

Introduction

The VCR is tuned automatically by Plug in Auto Tuning. However, Auto Tuning using the On Screen Display should be performed according to the following method if necessary.

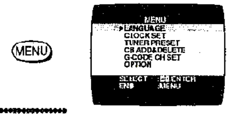
Preparations

- Confirm that the TV is on and the VCR viewing channel is selected.
- Turn on the VCR and select any programme position except A1 or A2.



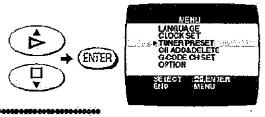
Operations **On Screen Display**

1


MENU
MENU
▸LANGUAGE
CLOCK SET
TUNER PRESET
CH ADD&DELETE
G-CODE CH SET
OPTION
SELECT
ENTER
END
MENU

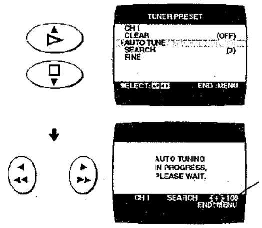
Press **MENU**.

2


ENTER
MENU
LANGUAGE
CLOCK SET
▸TUNER PRESET
CH ADD&DELETE
G-CODE CH SET
OPTION
SELECT
ENTER
END
MENU

Select **TUNER PRESET.**

3


TUNER PRESET
CH 1
CLEAR (OFF)
▸AUTO TUNE
SEARCH (3)
FINE
SELECT
END :MENU
AUTO TUNING
IN PROGRESS,
PLEASE WAIT.
CH 1 SEARCH
END:MENU

Select **AUTO TUNE** and press ◀ or ▶.
- When Auto Tuning is completed, the On Screen Display disappears and programme position 1 is selected.

The number displayed here is the number of channels still to be auto tuned.

Notes:
- Auto Tuning searches for TV stations from VHF minimum to UHF maximum and memorizes every tuned programme position. Other programme positions are skipped.
- Auto Tuning takes five or more minutes to complete its search.
- If the VCR is not correctly tuned by Auto Tuning, follow the procedure on the next page.

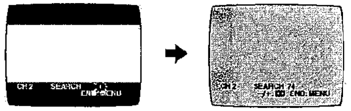
Channels that can be Received

	VHF	CATV	UHF
NV-HD675A	0-12	45-470MHz	28-69
NV-HD675EA	1-11	44-470MHz	21-69

Manual Tuning Procedure

1 Press **MENU**.
2 Select **TUNER PRESET** by pressing ▲ or ▼ and **ENTER**.
3 Select **CH** by pressing ▲ or ▼ then select the channel number you want tuned by pressing ◀ or ▶.
4 Confirm that **CLEAR** is set to **OFF**.
5 Select **SEARCH** by pressing ▲ or ▼ then press ◀ or ▶.

On Screen Display

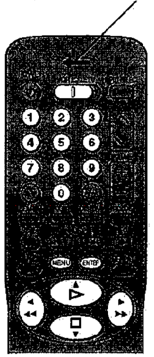

CH2 SEARCH
END:MENU
CH2 SEARCH 74
END:MENU

6 If the desired TV station has not been tuned, press ◀ or ▶ again.
- Press **MENU** and repeat steps 3–5 for each programme position you want to tune to a station.
- To exit, press **MENU** three times.

Direct Tuning

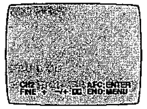
1 Repeat steps 1–4 in **Manual Tuning**.
2 Select **SEARCH** by pressing ▲ or ▼.
3 Using the **numeric buttons** on the remote controller (Ensure that VCR—TV switch is set to VCR.), enter the same number as the number of the channel to be tuned. For the 5A and 9A channels, input the following numbers: 90 for CH-5A, 91 for CH-9A.
- For other channels that require tuning, repeat steps 3–4 in **Manual Tuning** and steps 2–3 above.
- To exit, press **MENU** twice.

Set the VCR—TV switch to **VCR** for using the **numeric buttons**.


1
2
3
4
5
6
7
8
9
0
MENU
ENTER

Fine Tuning Procedure

1 Press **MENU**.
2 Select **TUNER PRESET** by pressing ▲ or ▼ and **ENTER**.
3 Select **CH** by pressing ▲ or ▼ then select the programme position by pressing ◀ or ▶.
4 Select **FINE** by pressing ▲ or ▼.
5 Press ◀ or ▶ to obtain the best tuning condition.


AFC:ENTER
FINE
END:MENU

- To return the tuning to its former state, press **ENTER**.

6 Press **MENU**.

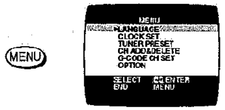
Blanking of Unused Programme Positions

1 Press **MENU**.
2 Select **TUNER PRESET** by pressing ▲ or ▼ and **ENTER**.
3 Select CH by pressing ▲ or ▼ then select the programme position by pressing ◀ or ▶.
4 Select **CLEAR** by pressing ▲ or ▼.
5 Select **ON** by pressing ◀ or ▶.
- Repeat steps 3–5 for other unused programme positions to skip during the selection of programme positions.
- To cancel the blanking of a programme position, select that programme position then select **CLEAR OFF**.

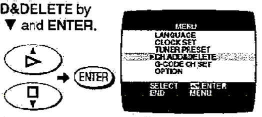
6 Press **MENU** twice.

CH ADD&DELETE

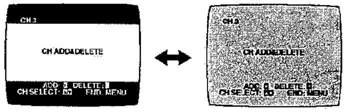
Example:
If you want to add a new channel between CH4 and CH6,
1 Press **MENU**. **On Screen Display**


MENU
MENU
LANGUAGE
CLOCK SET
TUNER PRESET
CH ADD&DELETE
G-CODE CH SET
OPTION
SELECT ENTER
END MENU

2 Select CH **ADD&DELETE** by pressing ▲ or ▼ and **ENTER**.


ENTER
MENU
LANGUAGE
CLOCK SET
TUNER PRESET
CH ADD&DELETE
G-CODE CH SET
OPTION
SELECT ENTER
END MENU

3 Select the desired channel (example CH3) by pressing ▲ or ▼ then select **ADD** by pressing ▶.


CH 3
CH ADD&DELETE
ADD: ▶ DELETE: ◀
CH SELECT END: MENU

Before Adding

Programme Position	Channel
1	2
2	4
3	6
4	8
5	10
6	12
7	—
8	—

After Adding

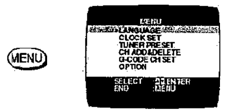
Programme Position	Channel
1	2
2	4
3	—
4	6
5	8
6	10
7	12
8	—

- Adding a channel shifts the programme positions of CH6 to CH12 up, as shown in the list above.
- The list of the programme positions do not appear on the On Screen Display.

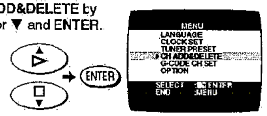
4 After adding, Tune the added channel. (See steps 3–5 in **Manual Tuning** on page 14.)
- Press **MENU** twice and repeat steps 3–4 for each of the other programme positions.

5 Press **MENU** four times.

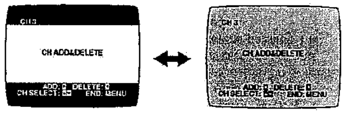
Example:
If you want to delete CH6,
1 Press **MENU**.


MENU
MENU
LANGUAGE
CLOCK SET
TUNER PRESET
CH ADD&DELETE
G-CODE CH SET
OPTION
SELECT ENTER
END MENU

2 Select CH **ADD&DELETE** by pressing ▲ or ▼ and **ENTER**.


ENTER
MENU
LANGUAGE
CLOCK SET
TUNER PRESET
CH ADD&DELETE
G-CODE CH SET
OPTION
SELECT ENTER
END MENU

3 Select the desired channel (example CH3) by pressing ▲ or ▼ then select **DELETE** by pressing ◀.


CH 3
CH ADD&DELETE
ADD: ▶ DELETE: ◀
CH SELECT END: MENU

Before Deleting

Programme Position	Channel
1	2
2	4
3	6
4	8
5	10
6	12
7	—
8	—

After Deleting

Programme Position	Channel
1	2
2	4
3	8
4	10
5	12
6	—
7	—
8	—

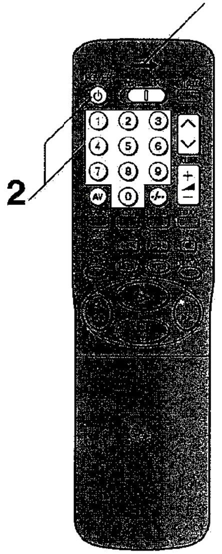
- Deleting a channel shifts the programme positions of CH8 to CH12 down, as shown in the list above.
- The list of the programme positions do not appear on the On Screen Display.
- Press **MENU** and repeat steps 2-3 for each of the other programme positions.

4 Press **MENU** twice.

Setting the Remote Controller for Operation of your TV

You can operate the TVs of the manufacturers listed below with the remote controller after setting it.

Set **VCR—TV** switch to TV for using **POWER** ⏻, the ∨ and ∧ buttons and the **numeric buttons**.



01	Panasonic/National
02	Panasonic/National
03	Panasonic/National
04	Panasonic/National
05	SONY
06	TOSHIBA
07	JVC
08	HITACHI
09	MITSUBISHI
10	MITSUBISHI
11	SHARP
12	PHILIPS, SAMSUNG
13	NEC
14	SANYO
15	GOLDSTAR
16	GOLDSTAR
17	SAMSUNG
18	SAMSUNG
19	SANYO

This setting procedure allows you to operate the TVs of some manufacturers using the supplied remote controller.

Preparation
Set the **VCR—TV** switch to TV.

Operations

1 Find the manufacturer number of your TV while referring to the following table.

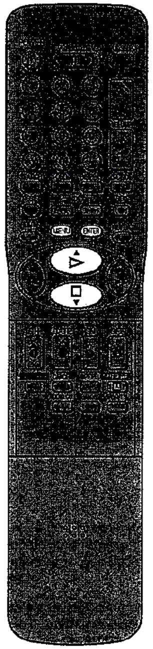
2 While holding down **POWER** ⏻, use the **numeric buttons** to enter the manufacturer number. This completes the settings for the TV manufacturer.
- Be sure to enter the number in two digits.
  Example: 1→01

3 To confirm that the correct settings were made, check whether the TV can be operated properly.
- When a manufacturer has multiple numbers in the following table, try entering other numbers if the TV operations cannot be performed properly, and then select the optimal number.

Notes:
- If you are using a Panasonic TV, this setting has already been made, and so you do not need to perform the above setting procedure. However, this remote controller may not work with some Panasonic TVs.
- Some TV models cannot be operated using this remote controller (including all TVs non-remote compatible).

Language Setting of the On Screen Display

Preparations
- Confirm that the TV is on and the VCR viewing channel is selected.
- Turn on the VCR.

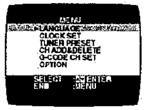


To Select the Desired Language

Select one of the two languages displayed: English and Russian.

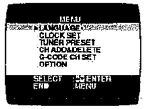
On Screen Display

1 Press **MENU**.



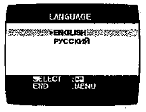
MENU
▶LANGUAGE
CLOCK SET
TUNER PRESET
CH ADD&DELETE
G-CODE CH SET
OPTION
SELECT :⇕ENTER
END :MENU

2 Select **LANGUAGE**.



MENU
▶LANGUAGE
CLOCK SET
TUNER PRESET
CH ADD&DELETE
G-CODE CH SET
OPTION
SELECT :⇕ENTER
END :MENU

3 Select the desired language.



LANGUAGE
▶ENGLISH
РУССКИЙ
SELECT :⇕
END :MENU

4 Press **MENU** twice.

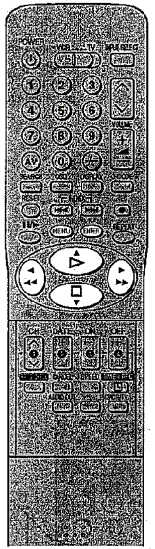
Note:
The menu screen has a blue background. However, if there is no signal input while A1 or A2 is selected, the menu screen may change to black and white when **MENU** is pressed. This does not indicate a malfunction. If it happens, either input a signal or select another programme position.

Setting the Clock of your VCR

The clock will operate for at least 3 years in total after it has been set, – in the event of a power failure, it will operate on its backup system. After 3 years, it will only operate for 1 hour on its backup system.

Preparations

- Confirm that the TV is on and the VCR viewing channel is selected.
- Turn on the VCR.



Time Reset Function

If the clock is less than two minutes slow or fast, it can easily be reset to the proper time.

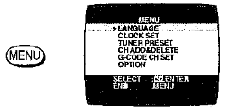
Example:
Resetting the clock to 12:00.00

1 Select **CLOCK SET** from the OSD menu and press **ENTER**.
2 When the current clock display on the VCR is between 11:58.00 and 12:01.59, press **MENU** as soon as you hear the 12:00.00 signal. This resets the time to 12:00.00.

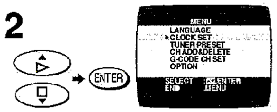
Example:
Date; 16 October, 2005
Time; 20:15

Operations **On Screen Display**

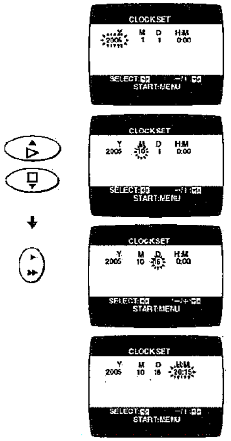
1 Press **MENU**.


MENU
MENU
LANGUAGE
CLOCK SET
TUNER PRESET
CH ADD/DELETE
G-CODE CH SET
OPTION
SELECT ENTER
EXIT MENU

2 Select **CLOCK SET**.


ENTER
MENU
LANGUAGE
CLOCK SET
TUNER PRESET
CH ADD/DELETE
G-CODE CH SET
OPTION
SELECT ENTER
EXIT MENU

3 Set each item by pressing ▲ or ▼ and ▶.
Press ◀ to return to the previous item.


CLOCK SET
Y M D H:M
2005 1 1 0:00
SELECT
START:MENU
2005 10 1 0:00
2005 10 16 0:00
2005 10 16 20:15

Set **Year (Y)** to "2005".

Set **Month (M)** to "10".

Set **Date (D)** to "16".

Set **Time (H:M)** to "20:15".
- When it is kept pressed, the indication changes in 30-minute steps.
- There is no need to press ▶.

4 Press **MENU**.
- The clock starts.

Display Symbol

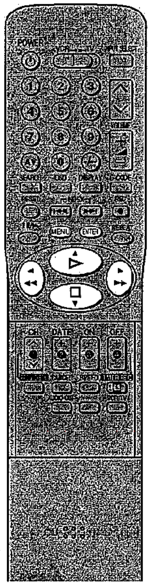
Preparations for G-Code Programming

Identification numbers must be set for G-Code programming. Proceed with the G-Code programming operation described on page 34, and the identification numbers of the TV stations concerned will be set automatically. This will allow G-Code programming to be undertaken without performing the operation described on this page. However, you can follow the setting procedure described below if you wish to set the identification numbers of all the TV stations prior to actual programming.

"Identification numbers" refer to the numbers used for identifying TV stations.
The programme positions on the VCR receiving the TV stations are set in these identification numbers.
Have a newspaper or magazine which lists today's local TV station programmes and G-Code numbers on hand.

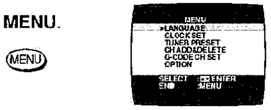
Preparations

- Set the clock of the VCR. See page 18.
- Store TV broadcasts in your VCR. See pages 12–15.
- Confirm that the TV is on and the VCR viewing channel is selected.
- Turn on the VCR.

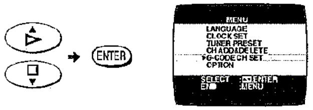


Operations **On Screen Display**

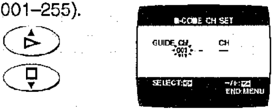
1 Press **MENU**.


MENU
MENU
LANGUAGE
CLOCK SET
TUNER PRESET
CH ADD/DELETE
G-CODE CH SET
OPTION
SELECT ENTER
EXIT MENU

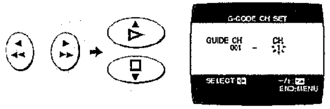
2 Select **G-CODE CH SET**.


ENTER
MENU
LANGUAGE
CLOCK SET
TUNER PRESET
CH ADD/DELETE
G-CODE CH SET
OPTION
SELECT ENTER
EXIT MENU

3 Select the identification number (**GUIDE CH**) (001–255).


G-CODE CH SET
GUIDE CH
001
CH
SELECT
END:MENU

4 Press ◀ or ▶ then select the programme position (1–99, A1 or A2).


G-CODE CH SET
GUIDE CH
001
CH
1
SELECT
END:MENU

- To set the other TV stations, press ◀ or ▶ then repeat steps 3 and 4.

5 Press **MENU** twice.

Note:
To receive satellite stations, the satellite receiver must be connected to the VCR and programme position must be set depending on the type of connection.
A1/A2: When the satellite receiver is connected to the audio/video input sockets (AV1/AV2).
- When the satellite receiver is connected by means of the RF coaxial cable, set to a free programme position between 1 and 99.

Example:
(NV-HD675A)

TV Station	Position Number	Identification Number (GUIDE CH)
ABC	2	002
ATN	7	007
TCN	9	009
TEN	10	010
SBS	28	028/001

Example:
(NV-HD675EA)

TV Station	Identification Number (GUIDE CH)
TV ONE	001
CHANNEL 2	002
TV3	003
SKY TV MOVIES	004
SKY TV SPORTS	005
SKY TV NEWS	006
SKY ORANGE	007
SKY DISCOVERY & TRACKSIDE	008
CTV	011

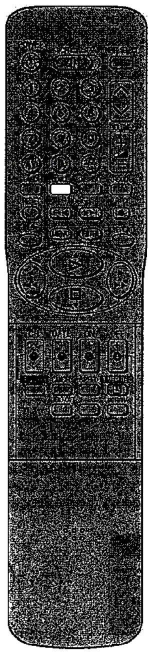
***Connection to the Sky decoder**
When the Sky decoder is connected to the audio video input sockets:
Set to "A1" or "A2".
When the Sky decoder is connected by means of the RF coaxial cable:
Set to the programme position that the Sky decoder is tuned to.

- When G-Code programming, turn on the Sky decoder and select the desired Sky channel.

Settings Using the On Screen Display

Preparations

- Confirm that the TV is on and the VCR viewing channel is selected.
- Turn on the VCR.

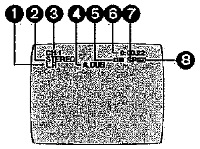


On Screen Display

1 Press **OSD**.

OSD

On Screen Display



2 Press **OSD** again to make the on screen display disappear.

OSD

❶ **Audio Output Mode Indicators**
The Left (L) and Right (R) Indicators show which sound mode is selected with **AUDIO OUT**.
Stereo: Both the Left (L) and Right (R) Indicators appear.
Left: The Left (L) Indicator appears.
Right: The Right (R) Indicator appears.
Normal: Neither the Left (L) nor Right (R) Indicator appears.

❷ **STEREO or BILINGUAL Indicator (NV-HD675A)**
When receiving a TV programme, the type of sound system in which it is broadcast is automatically indicated.
STEREO, M1 and M2 Indicator (NV-HD675EA)
When receiving a TV programme with the NICAM sound system, the type of sound system in which it is broadcast is automatically indicated.
STEREO: When receiving a NICAM stereo broadcast.
M1 M2: When receiving a NICAM dual-sound broadcast.
M1: When receiving a NICAM monaural broadcast.

Note:
To hear stereo performance connect as shown on page 9 to a TV or Stereo Amplifier with left and right audio inputs.

❸ **Programme position**

❹ **Edit mode**
When edit mode (Insert Editing, AV Insert Editing, Audio Dubbing) is set, the On Screen Display appears.

INSERT:	Insert Editing
AV INSERT:	AV Insert Editing
A.DUB:	Audio Dubbing

⑤ Tape running display

Stop, Eject	
Rewind, Review	◄◄
Fast forward, Cue	►►
Playback	►
Still playback	❚❚
Recording, Insert editing, Audio dubbing	●
Recording pause, Insert editing pause, Audio dubbing pause	❚❚●
Slow playback	❚►
Repeat playback	R ►

⑥ Present time/Tape counter/Remaining tape time/OTR indication/Dew/Index search/Play-Off Timer

Information	Display
Present time	17:24
Tape counter	−2:35.47
Remaining tape time	REMAIN 2:34
OTR indication	OTR 60
Dew	DEW
Index search	S 01
Play-Off Timer	OFF◫ 60

⑦ Tape speed indicator (SP/LP/EP)

⑧ Cassette-in indicator

Note:
The on screen display may be disturbed or disappear during special playback.

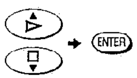
Option Setting

To Select the Corresponding Video Cassette Tape Length to Display the Approximate Remaining Tape Time (TAPE SELECT)

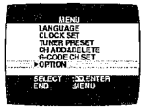
1 Press **MENU**.

MENU

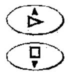
2 Select **OPTION**.

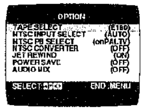


On Screen Display

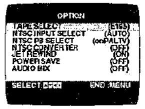

MENU
LANGUAGE
CLOCK SET
TUNER PRESET
CH ADD&DELETE
G-CODE CH SET
►OPTION
SELECT ENTER
END MENU

3 Select **TAPE SELECT**.




OPTION
TAPE SELECT (E180)
NTSC INPUT SELECT (AUTO)
NTSC PB SELECT (onPALTV)
NTSC CONVERTER (OFF)
JET REWIND (ON)
POWER SAVE (OFF)
AUDIO MIX (OFF)
SELECT
END :MENU

4 Select the corresponding video cassette tape length.


OPTION
TAPE SELECT (E180)
NTSC INPUT SELECT (AUTO)
NTSC PB SELECT (onPALTV)
NTSC CONVERTER (OFF)
JET REWIND (ON)
POWER SAVE (OFF)
AUDIO MIX (OFF)
SELECT
END :MENU

E180: For E30, -60, -90, -120, -150 and -180 tapes.
E195: For E195 tape.
E240: For E240 tape.
E260: For E260 and -300 tapes.

- The remaining tape time may not be displayed correctly depending on the tape used.

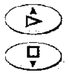
5 Press **MENU** twice to make the on screen display disappear.

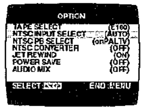
MENU

To Select the Colour TV System of the TV Used to Record NTSC Signals

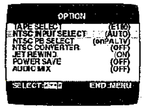
Follow steps 1 to 2 of TAPE SELECT.

3 Select **NTSC INPUT SELECT**.




OPTION
TAPE SELECT (E180)
NTSC INPUT SELECT (AUTO)
NTSC PB SELECT (onPALTV)
NTSC CONVERTER (OFF)
JET REWIND (ON)
POWER SAVE (OFF)
AUDIO MIX (OFF)
SELECT
END :MENU

4 Select **AUTO**.
Allows NTSC 4.43 or 3.58 signals to be distinguished automatically.


OPTION
TAPE SELECT (E180)
NTSC INPUT SELECT (AUTO)
NTSC PB SELECT (onPALTV)
NTSC CONVERTER (OFF)
JET REWIND (ON)
POWER SAVE (OFF)
AUDIO MIX (OFF)
SELECT
END :MENU

- Normally set at this position. If the tape has not recorded correctly, select 4.43 or 3.58.

4.43: When recording NTSC 4.43 signals.
3.58: When recording NTSC 3.58 signals.
Some programmes on NTSC 3.58 system cannot be recorded correctly at this position.

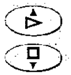
5 Press **MENU** twice to make the on screen display disappear.

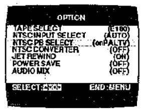
MENU

To Select the Colour TV System of the TV Used to Play Back a Tape Recording NTSC Signals

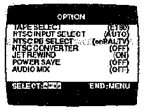
Follow steps 1 to 2 of TAPE SELECT.

3 Select **NTSC PB SELECT**.




OPTION
TAPE SELECT (E180)
NTSC INPUT SELECT (AUTO)
NTSC PB SELECT (onPALTV)
NTSC CONVERTER (OFF)
JET REWIND (ON)
POWER SAVE (OFF)
AUDIO MIX (OFF)
SELECT
END :MENU

4 Select the desired position according to the colour TV system of the TV.


OPTION
TAPE SELECT (E180)
NTSC INPUT SELECT (AUTO)
NTSC PB SELECT (onPALTV)
NTSC CONVERTER (OFF)
JET REWIND (ON)
POWER SAVE (OFF)
AUDIO MIX (OFF)
SELECT
END :MENU

on PAL TV: For TVs that can receive PAL signals.
4.43: For TVs that can receive NTSC 4.43 signals.
3.58: For TVs that can receive NTSC 3.58 signals.

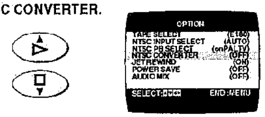
5 Press **MENU** twice to make the on screen display disappear.

MENU

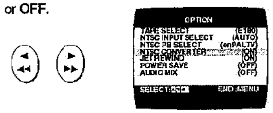
To Play a NTSC Game on PAL System TV

Follow steps 1 to 2 of TAPE SELECT.

3 Select **NTSC CONVERTER.**


OPTION
TAPE SELECT (E180)
NTSC INPUT SELECT (AUTO)
NTSC PB SELECT (onPALTV)
NTSC CONVERTER (OFF)
JET REWIND (ON)
POWER SAVE (OFF)
AUDIO MIX (OFF)
SELECT:
END:MENU

4 Select **ON** or **OFF.**


OPTION
TAPE SELECT (E180)
NTSC INPUT SELECT (AUTO)
NTSC PB SELECT (onPALTV)
NTSC CONVERTER (ON)
JET REWIND (ON)
POWER SAVE (OFF)
AUDIO MIX (OFF)
SELECT:
END:MENU

OFF: Normally set at this position.

ON: PAL TV can receive signals from NTSC 3.58 signal source (e.g., NTSC game machines.) connected to the VCR main unit. However, when recording, this function does not work.

- When receiving NTSC 4.43 signals, this function does not work correctly.

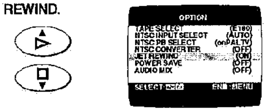
5 Press **MENU** twice to make the on screen display disappear.

To Change the Rewinding Speed

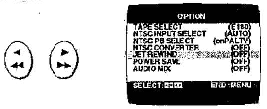
This function enables the tape to rewind at the 360 times speed.

Follow steps 1 to 2 of **TAPE SELECT.**

3 Select **JET REWIND.**


OPTION
TAPE SELECT (E180)
NTSC INPUT SELECT (AUTO)
NTSC PB SELECT (onPALTV)
NTSC CONVERTER (OFF)
JET REWIND (ON)
POWER SAVE (OFF)
AUDIO MIX (OFF)
SELECT:
END:MENU

4 Select **ON** or **OFF.**


OPTION
TAPE SELECT (E180)
NTSC INPUT SELECT (AUTO)
NTSC PB SELECT (onPALTV)
NTSC CONVERTER (OFF)
JET REWIND (OFF)
POWER SAVE (OFF)
AUDIO MIX (OFF)
SELECT:
END:MENU

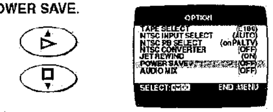
- Select **OFF** if you wish to rewind the VCR slowly.

5 Press **MENU** twice to make the on screen display disappear.

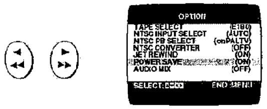
For Minimised the VCR s Power Comsumption When the VCR Is Switched Off

Follow steps 1 to 2 of **TAPE SELECT.**

3 Select **POWER SAVE.**


OPTION
TAPE SELECT (E180)
NTSC INPUT SELECT (AUTO)
NTSC PB SELECT (onPALTV)
NTSC CONVERTER (OFF)
JET REWIND (ON)
POWER SAVE (OFF)
AUDIO MIX (OFF)
SELECT:
END:MENU

4 Select **ON** or **OFF.**


OPTION
TAPE SELECT (E180)
NTSC INPUT SELECT (AUTO)
NTSC PB SELECT (onPALTV)
NTSC CONVERTER (OFF)
JET REWIND (ON)
POWER SAVE (ON)
AUDIO MIX (OFF)
SELECT:
END:MENU

ON: This setting makes the display disappear when the VCR is off.
It will not operate in the Timer standby mode.
After recording all programmed data, the VCR will go into Power save mode.

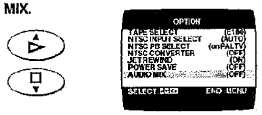
OFF: This setting does not conserve power when the VCR is off.

5 Press **MENU** twice to make the on screen display disappear.

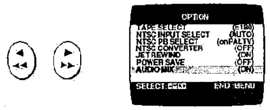
Audio Mix

Follow steps 1 to 2 of **TAPE SELECT.**

3 Select **AUDIO MIX.**


OPTION
TAPE SELECT (E180)
NTSC INPUT SELECT (AUTO)
NTSC PB SELECT (onPALTV)
NTSC CONVERTER (OFF)
JET REWIND (ON)
POWER SAVE (OFF)
AUDIO MIX (OFF)
SELECT:
END:MENU

4 Select **ON** or **OFF.**


OPTION
TAPE SELECT (E180)
NTSC INPUT SELECT (AUTO)
NTSC PB SELECT (onPALTV)
NTSC CONVERTER (OFF)
JET REWIND (ON)
POWER SAVE (OFF)
AUDIO MIX (ON)
SELECT:
END:MENU

ON: Both sound tracks (the Hi-Fi sound track and the normal sound track) are played back mixed together. Use this setting when playing back a cassette tape which has been insert edited or audio dubbed.

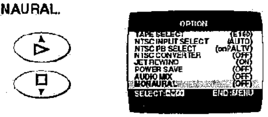
OFF: Normally set at this position to reproduce the better sound available from the Hi-Fi track.

5 Press **MENU** twice to make the on screen display disappear.

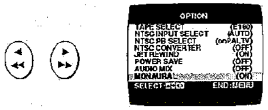
To Select the Sound Mode (NV-HD675EA only)

Follow steps 1 to 2 of **TAPE SELECT.**

3 Select **MONAURAL.**


OPTION
TAPE SELECT (E180)
NTSC INPUT SELECT (AUTO)
NTSC PB SELECT (onPALTV)
NTSC CONVERTER (OFF)
JET REWIND (ON)
POWER SAVE (OFF)
AUDIO MIX (OFF)
MONAURAL (OFF)
SELECT:
END:MENU

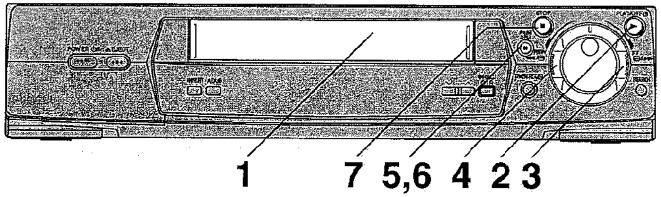
4 Select **ON** or **OFF.**

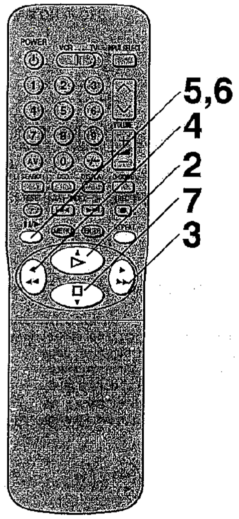

OPTION
TAPE SELECT (E180)
NTSC INPUT SELECT (AUTO)
NTSC PB SELECT (onPALTV)
NTSC CONVERTER (OFF)
JET REWIND (ON)
POWER SAVE (OFF)
AUDIO MIX (OFF)
MONAURAL (ON)
SELECT:
END:MENU

- Select **ON** to record the normal sound during a NICAM broadcast or if the stereo sound is distorted due to inferior reception conditions.

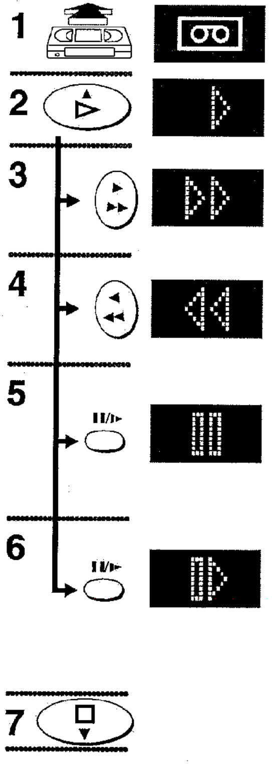
5 Press **MENU** twice to make the on screen display disappear.

Playback





Operations **Display Symbols**



1. Insert a recorded video cassette tape.
2. Start viewing the picture.
3. Search forward by tapping ▶▶ **(FF)**.
   - To change back to normal playback, press ▷ **(PLAY)**.
4. Search backward by tapping ◀◀ **(REW)**.
   - To change back to normal playback, press ▷ **(PLAY)**.
5. View a still picture.
   Press **II/I▸ (PAUSE/SLOW)** or **PAUSE/STILL II**.
   - To continue normal playback, press ▷ **(PLAY)** or **II/I▸ (PAUSE/SLOW)** or **PAUSE/STILL II**.
6. View a slow motion picture.
   - Keep **II/I▸ (PAUSE/SLOW)** or **PAUSE/STILL II** pressed for 2 seconds or more.
   - To continue normal playback, press ▷ **(PLAY)** or **II/I▸ (PAUSE/SLOW)**.
7. Stop viewing the picture.

Note:
If you keep ▶▶ (FF) or ◀◀ (REW) pressed in step 3 or 4, search playback is activated while the button is pressed, and operation returns to normal playback when the button is released.

PLAY-OFF TIMER

Whenever you are playing back and wish to stop the tape automatically, simply set the playback duration by pressing **PLAY/OFF** ⏲ ▶ repeatedly.
The duration indicated on the VCR display changes by pressing **PLAY/OFF** ⏲ ▶ as follows.

$$\text{Counter display (normal playback mode)} \rightarrow 30\ (\text{min.}) \rightarrow 60\ (\text{min.}) \rightarrow 120\ (\text{min.}) \rightarrow 180\ (\text{min.}) \rightarrow 240\ (\text{min.}) \rightarrow \text{Counter display}$$

Press **PLAY/OFF** ⏲ **on the VCR main unit** during playback.

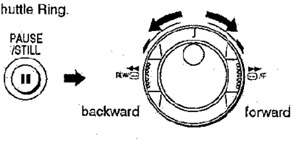
- The VCR will automatically switch off when Play-Off Timer is completed. To turn the VCR on again, press **POWER ⏻ (POWER ⏻/I)**.

Notes:
- The Play-Off Timer function works during normal playback.
- When the tape reaches its end during Play-Off Timer, the tape will be rewound to the start and the VCR will turn itself off.
- To stop Play-Off Timer at any time, press **STOP ■** or **POWER ⏻/I**.
- Repeat Playback function does not work during Play-Off Timer.

Other Playback Functions

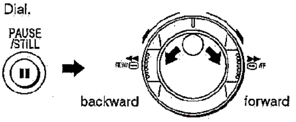
To change the Playback Speed

1 Press **PAUSE/STILL II** on the VCR.
2 Rotate Shuttle Ring.



To locate the Desired Picture Exactly.

1 Press **PAUSE/STILL II** on the VCR.
2 Turn Jog Dial.



To Obtain a High Speed Picture During Fast Forward or Rewind

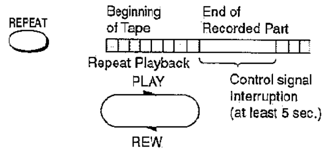
Keep ▶▶ **(FF)** pressed during fast forward.
Keep ◀◀ **(REW)** pressed during rewind.

To Eject the Video Cassette Using the Remote Controller

Keep pressing □ **(STOP)** for at least 3 seconds.

To Play back the Recorded Part Repeatedly

Press REPEAT.
The "R ▶" display appears on the TV screen.



- Repeat Playback function dces not work during Play-Off Timer.
- Press □ **(STOP)** to release the VCR from the Repeat Playback mode.

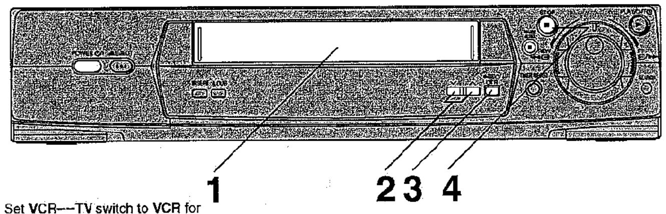
Notes:
- Set **NTSC PB SELECT** acccrding to the TV system of your TV. (See page 23.)

  When playback the NTSC tapes:
  on PAL TV: For TVs that can receive PAL signals.
  4.43: For TVs that can receive NTSC 4.43 signals.
  3.58: For TVs that can receive NTSC 3.58 signals.

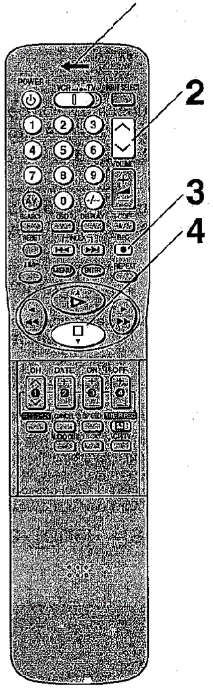
  When playback the PAL tapes:
  You do not need to set **NTSC PB SELECT.**

  NTSC 3.58 recording requires **NTSC INPUT** SELECT to be in the AUTO or 3.58 position, however if **NTSC INPUT SELECT** is in this position when recording a NTSC 3.58 signal, no colour is available for the PAL TV. Once the recording is completed, you then need to select on **PAL** TV to view the recording in colour on PAL TV.
- Audio reproduction of linear (conventionally recorded) tapes will be monaural when played back on the FM Hi-Fi video recorders.
- Cue, review or slow playback will be automatically released after 10 minutes, and still playback, after 5 minutes.
- In Cue and Review playback, noise bars and distortions may occur on the screen. However, this is not a malfunction.
- In the LP (EP) mode only:
  1. During any playback mode other than normal playback, the picture may have some noise bars, the colour may be unstable, or a black and white picture may appear.
  2. When playing back a tape which was recorded on another VCR, it may be necessary to adjust tracking control. In some cases the picture quality may still be inferior. This is due to format constraints.
  3. Depending on the TV set used, the playback picture may roll up or down during special playback (Pause, Cue, Review, or Slow playback mode). However, this is not an indication of a malfunction.

Manual Recording

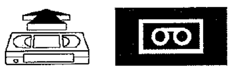


Set **VCR––TV** switch to **VCR** for using **POWER** ⏻, the ∨ and ∧ buttons and the **numeric buttons**.



Operations **Display Symbols**

1

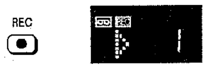


Insert a video cassette tape with an intact erasure prevention tab.
- If it has already been inserted, press **POWER** ⏻/I (**POWER** ⏻) to turn the VCR on.

2

Select the TV station.
- It is also possible to select by pressing **numeric buttons**.
- Ensure that **VCR––TV** switch is set to **VCR**.

3



Start recording.

4

Stop recording.

To Select the Desired Tape Speed

Press **SPEED** before recording.

Display Symbol

To Interrupt Recording

Press ▮▮/▸ (**PAUSE/SLOW**) during recording.
Press again to continue recording.

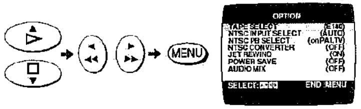
To Record One TV Programme while Viewing Another One

1 Refer to steps **1**–**3** of the manual recording operation.
2 Select the TV programme on your TV that you wish to view now.
- Ensure that **VCR––TV** switch is set to **TV**.

To Display the Approximate Remaining Tape Time

1 Select **TAPE SELECT** from the on screen display and select the corresponding video cassette tape length. See page 22.

On Screen Display



E180: For E30, -60, -90, -120, -150 and -180 tapes.
E195: For E195 tape.
E240: For E240 tape.
E260: For E260 and -300 tapes.

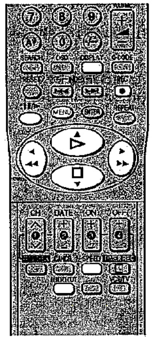
2 Press **DISPLAY**.

DISPLAY
REMAIN
1:05

The display changes as follows each time **DISPLAY** is pressed.
→Clock→Counter→**Remaining Tape Time**

- The remaining tape time may not be displayed correctly depending on the tape used.

Notes:
- When a video cassette with a broken off erasure prevention tab is inserted, the "⊡" indication will flash to indicate that recording is not possible even if **REC ● (● REC/OTR)** is pressed.
- The recording pause mode will be automatically released after 5 minutes, and the VCR will return to the stop mode.



Recording of Stereo or Bilingual Programmes (NV-HD675A only)

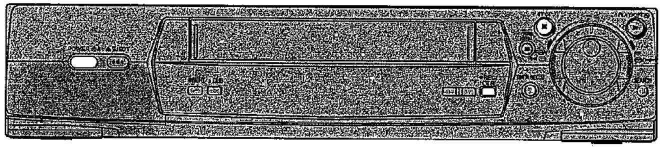
1 Recording is automatically made in the stereo or bilingual mode. This prevents errors in the selection of the dubbed or the original language.

2 During playback press **AUDIO OUT** to select the desired sound mode. See page 7.

The NICAM Broadcast System (NV-HD675EA only)

NV-HD675EA is equipped with the NICAM sound system.
NICAM is a 2 channel sound broadcast system to provide either a high quality stereo sound track or 2 independent MONO sound tracks, M1 and M2.
NICAM programmes are always accompanied by standard sound broadcasts and you can select the desired sound with **AUDIO OUT** during playback.
- The NICAM digital stereo sound can only be recorded on the Hi-Fi audio track.
- When NICAM programme is being received, the indicators are lit to inform you of the type of broadcast. (See page 21.)
- To record the regular sound (ordinary normal sound) on the FM audio tracks when a NICAM programme is received, set **MONAURAL** to **ON**. (See page 25.)
- To hear stereo performance connect as shown on page 9 to a TV or Stereo Amplifier with left and right audio inputs.

Important Note for the NICAM System
When NV-HD675EA is switched on, the tuner will automatically switch to a NICAM broadcast, if NICAM is being transmitted.
At this time the NICAM signal is transmitted on stereo channels only, since the M1 and M2 formats are not yet available. Even if the sound track is in MONO, the stereo indicator will appear.



One-Touch Recording (OTR)

Whenever you are in a hurry to start a timer recording with automatic stop in your absence, simply set the recording duration by pressing ● REC/OTR repeatedly.
The duration indicated on the VCR display changes by pressing ● REC/OTR as follows:

→ Counter display (normal recording mode) → 30 (min.) → 60 (min.) → 120 (min.) → 180 (min.) → 240 (min.) →

Preparation

Insert a video cassette with an intact erasure prevention tab.

Operations

1 Ready the video source which is to be recorded, and start recording.

2 Press **● REC/OTR on the VCR main unit** repeatedly to select the desired recording duration.

●REC/OTR

- The VCR will automatically switch off when OTR is completed. To turn the VCR on again, press POWER ⏻/I.

Notes:
- The OTR function works during normal recording.
- When the tape reaches its end during OTR, the VCR will turn itself off.
- To stop OTR at any time, press STOP ■ or POWER ⏻/I.

Timer Recording

4-Key Programming

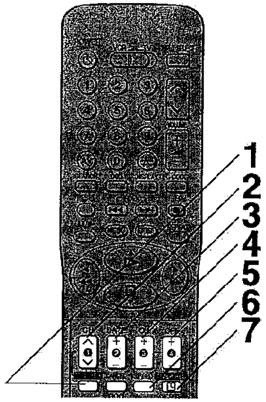
Up to 8 timer programmes, including weekly and daily programmes, can be recorded up to one month in advance by setting the timer.

Preparations

- Insert a video cassette tape with an intact erasure prevention tab.
- Confirm that the TV is on and the VCR viewing channel is selected.
- Turn on the VCR.
- Check that the clock is set to the correct time. If it has not been set, refer to page 18.

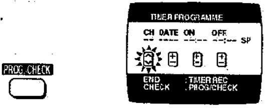
Example:

Programme position (channel);	2
Date;	27 October
Starting time;	20:02
Ending time;	21:30
Tape speed;	LP
(Present date; 16 October)	

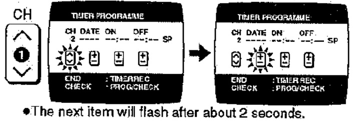


Operations **On Screen Display**

1 Press **PROG./CHECK**.

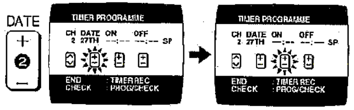

PROG./CHECK
TIMER PROGRAMME
CH DATE ON OFF
SP
END CHECK
:TIMER REC
:PROG/CHECK

2 Set **Programme position** (channel) to "2".

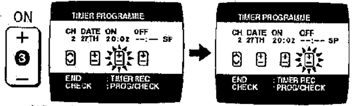

CH
TIMER PROGRAMME
CH DATE ON OFF
SP
END CHECK
:TIMER REC
:PROG/CHECK

- The next item will flash after about 2 seconds.

3 Set **Date** to "27TH".

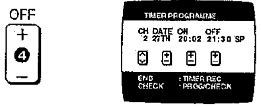

DATE
TIMER PROGRAMME
CH DATE ON OFF
2 27TH
SP

4 Set **Starting time** to "20:02".

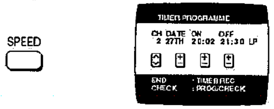

ON
TIMER PROGRAMME
CH DATE ON OFF
2 27TH 20:02
SP

- When kept pressed, the indication changes in 30-minute steps.

5 Set **Ending time** to "21:30".


OFF
TIMER PROGRAMME
CH DATE ON OFF
2 27TH 20:02 21:30 SP

6 Set **Tape speed** to "LP".


SPEED
TIMER PROGRAMME
CH DATE ON OFF
2 27TH 20:02 21:30 LP

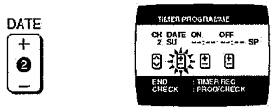
7 TIMER REC ⏲ To activate timer recording, press **TIMER REC** ⏲.

- The "PROGRAMME IS COMPLETE." message appears.
- The VCR will be set to the timer recording standby mode after about 1 minute if **TIMER REC** ⏲ is not pressed.

Weekly Timer Recording

In step 3, select the desired day by pressing **DATE –**.
For example, SU (Sunday)

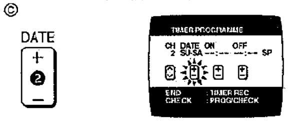
On Screen Display


DATE
TIMER PROGRAMME
CH DATE ON OFF
2 SU --:-- --:-- SP
END : TIMER REC
CHECK : PROG/CHECK

(SU=Sunday, MO=Monday, TU=Tuesday, WE=Wednesday, TH=Thursday, FR=Friday, SA=Saturday)

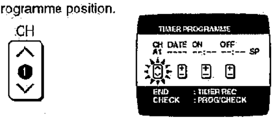
Daily Timer Recording

For this timer function, several groups of days can be selected.
Ⓐ Daily recording from Monday to Friday (MO–FR)
Ⓑ Daily recording from Monday to Saturday (MO–SA)
Ⓒ Daily recording from Sunday to Saturday (SU–SA)
In step 3, select the desired days by pressing **DATE –**.
For example, Ⓒ


DATE
TIMER PROGRAMME
CH DATE ON OFF
2 SU-SA --:-- --:-- SP
END : TIMER REC
CHECK : PROG/CHECK

Timer Recording from an External Signal Source

If timer recording is performed by a unit connected to the audio/video input sockets, select the A1 or A2 indicator in step 2 for the programme position.


CH
TIMER PROGRAMME
CH DATE ON OFF
A1 ---- --:-- --:-- SP
END : TIMER REC
CHECK : PROG/CHECK

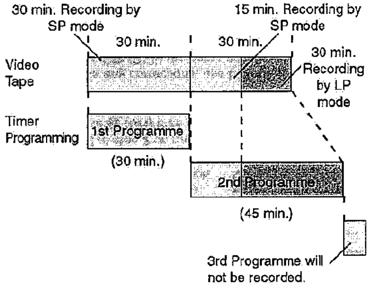
Setting other Programmes in Succession

Repeat steps 1–7.

Programming a Timer Recording of a TV Programme Until its End (Auto SP/LP Change Function)

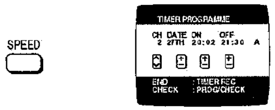
If, during a timer recording performed in the SP mode, the VCR determines that the remaining tape time is insufficient to record the programme to its end, the Auto SP/LP Change function automatically changes the tape speed to LP to ensure that the whole programme will be recorded. Depending on the remaining tape length, recording may be performed in the LP mode from the start. However, if the remaining tape time is still not sufficient in this case, the programme cannot be recorded to the end.

Example (Remaining Tape Time 60 min.):


30 min. Recording by SP mode
15 min. Recording by SP mode
30 min.
30 min.
30 min. Recording by LP mode
Video Tape
Timer Programming
1st Programme
(30 min.)
2nd Programme
(45 min.)
3rd Programme will not be recorded.

- The tape length must be set correctly.(See page 22.)
- Tapes except E30, -60, -90, -120, -150, -180, -240, -260 tapes may not work correctly.

To Activate the Auto SP/LP Change Function:
Press **SPEED** to select "A".


SPEED
TIMER PROGRAMME
CH DATE ON OFF
2 27TH 20:02 21:30 A
END : TIMER REC
CHECK : PROG/CHECK

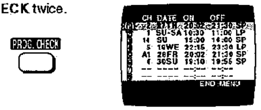
- Every time you press **SPEED**, the indication changes in the following order:

→SP→LP→A—

Checking a Timer Programme

- The VCR must be turned on, or the timer recording indicator "⊡" lit.
- Confirm that the TV is on and the VCR viewing channel is selected.

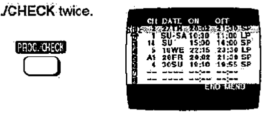
Press **PROG./CHECK** twice.


PROG./CHECK
CH DATE ON OFF
END MENU

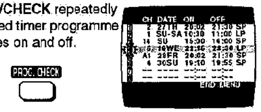
Cancelling a Timer Programme

- The VCR must be turned on, or in timer recording standby mode.
- Confirm that the TV is on and the VCR viewing channel is selected.

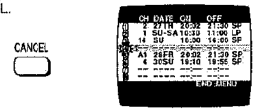
1 Press **PROG./CHECK** twice.


PROG./CHECK
CH DATE ON OFF
END MENU

2 Press **PROG./CHECK** repeatedly until the desired timer programme number flashes on and off.


PROG./CHECK
CH DATE ON OFF
END MENU

3 Press **CANCEL**.


CANCEL
CH DATE ON OFF
END MENU

Note:
If timer recording is not completed (due to insufficient tape or cancellation by the user), the programmed timer recording data will be cancelled from the memory by 4 A.M. two days later.
However, if, at that time, the timer recording function is activated, the programmed timer recording data will not be cancelled.

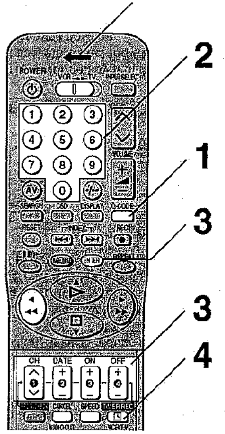
G-Code Programming

Programming is now easier than ever; simply enter the G-Code number found in the programme scheduling pages of newspapers and magazines.
G-Code numbers are numbers assigned to programmes listed in the TV programme schedule found in newspapers and TV guides. When these numbers are entered, the numbers are converted to actual programming.

Preparations

- Insert a video cassette tape with an intact erasure prevention tab.
- Confirm that the TV is on and the VCR viewing channel is selected.
- Turn on the VCR.
- Check that the clock is set to the correct time. If it has not been set, refer to page 18.

Set **VCR—TV** switch to **VCR** for using the **numeric buttons** and the G-CODE button.



Operations

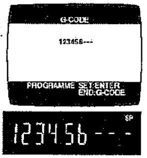
On Screen Display and Display Symbol

1 Press **G-CODE.**
- Ensure that **VCR—TV** switch is set to **VCR.**

G-CODE

G-CODE
END:G-CODE

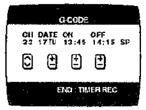
2 Enter a G-Code number.
Example:123456

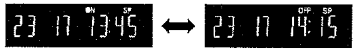


- It is also possible to check the number with VCR display without appearing the On Screen Display.
- If you have entered the wrong number, press **CANCEL** then enter the proper number. An alternative method is to press ◄ and then enter the proper number.

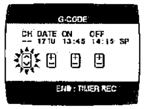
3 Press **ENTER.** ENTER

- The entered programme appears on the display.
- The starting time and the ending time appears alternately each 5 seconds on the VCR display.





- Confirm that the number corresponds to the right programme. If the display looks like this and ⊡ on the VCR display flashes on and off: select the programme position of your VCR which receives the TV station you entered at step 2 on page 31 using the ❶ (CH) then press ENTER.



- To make any corrections, use buttons ❷ (DATE), ❸ (ON) and ❹ (OFF) the same way as described on page 31.

4 Press **TIMER REC** ⊡.

TIMER REC

Notes:
- To select the desired tape speed, press SPEED after step 3.
- When the G-Code number is used for programming, the recording time may be slightly longer than the actual programme time.
- Repeat steps 2 and 3 if "PROGRAMME IS INCOMPLETE." appears.
- When programming two or more programmes, repeat steps 1–4.
- The procedures for checking and cancelling a timer programme are the same as on page 33.

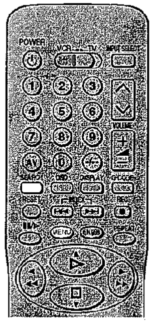
Search Functions

Searching Timer-Recorded Programmes (Programme List Search)

Searching Using the Programme List Search Function
When timer programmes are recorded by this VCR, the VCR stores the programming details, and the programmes are selected and searched by the programme list search function.

Preparations

- Confirm that the TV is on and the VCR viewing channel is selected.
- Release the standby status for timer programme recording.

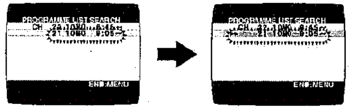


Displaying the PROGRAMME LIST SEARCH Screen

Press SEARCH.

SEARCH

On Screen Display



- The details of the timer-recorded programmes on this video cassette are displayed on the PROGRAMME LIST SEARCH screen in the sequence in which the programmes were recorded.
- When no further operations are undertaken for about 3 or more seconds, the search for the last timer-recorded programme is commenced.
- Upon completion of the search, playback starts from the searched point on the tape.

Searching other programmes

Press **SEARCH** several times to select the programme which is to be searched.

SEARCH

- When **SEARCH** is pressed once, the timer-recorded programme which was recorded last is selected. Each time **SEARCH** is subsequently pressed, the programme before (or above on the list shown on the screen) is selected.
- If **SEARCH** is pressed again when the top programme is selected, the bottom programme will be selected.
- Another programme can be selected by pressing **SEARCH** even after a search has been commenced.

To stop the search at any time

Press **MENU** and clear the PROGRAMME LIST SEARCH screen.

Notes:
- This function does not work during timer recording standby mode.
- This function works only for video cassettes containing timer-recorded programmes.
- Since this function works only for the currently loaded video cassette, **all the programming list details will be cleared when the video cassette is ejected or replaced with another one.** At times like this, use the VHS index search system or the intro-jet scan function. (See page 36.)
- The programme list search function may not work properly when recorded programmes run for 15 minutes or less.
- Ensure that **TAPE SELECT** for **OPTION** on the **MENU** is set correctly, as otherwise, this function will not operate correctly. (See page 22.)
- When **SEARCH** is pressed during playback, playback is stopped immediately, and the PROGRAMME LIST SEARCH screen appears.
- Up to 8 programmes can be displayed on the PROGRAMME LIST SEARCH screen. If the timer is used to record more than 9 programmes, the oldest programme will be deleted on the PROGRAMME LIST SEARCH screen, and a new timer-recorded programme will be entered and displayed.
- This function may not work properly depending on the tape position when you press **SEARCH**.
- This function may not work properly when for example, you try to record over a programme with another programme that is timer-recorded on the same portion of the tape.

To Find the Beginning of Each Recording (VHS Index Search System)

Example:
Searching for the 2nd recorded segment in the forward direction.
Press **INDEX ►►I** twice.
(This operation is performed while the VCR is in the stop mode or normal playback mode.)

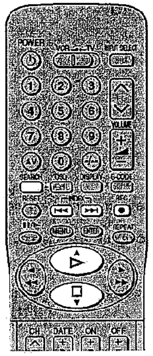
Display Symbol

- After finding the specific recorded segment, playback starts automatically.
- If you press **INDEX ►►I** too many times, simply press **INDEX I◄◄** to correct it. In this way, you can reduce the displayed figure down to 1.
- Up to 20 index signals can be searched for in both directions.
- The figure on the display decreases by 1 each time an index signal is located.

Recording Index Signals
Index signals are recorded in the following cases.

- When a recording is started by pressing **REC ● (● REC/OTR)**.
- When **REC ●** on the remote controller is pressed during recording.
- When timer recording is activated.

Note:
The index search function can only work correctly if the index signals are spaced at least 5 minutes.



Searching while checking the video cassette contents (Intro-Jet Scan)

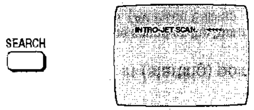
The approximate beginnings of each recorded programme are played in succession at the high speed so that the programme to be viewed can be located easily.

Preparations

- Confirm that the TV is on and the VCR viewing channel is selected.
- Load the pre-recorded video cassette.

1 Press **SEARCH**.
(This operation is performed while the VCR is OFF or while the VCR is in the stop mode or normal playback mode with the VCR ON.)

On Screen Display



- The tape is rewound to the start, and played for about 10 seconds at the high speed. It is then fast forwarded, the VISS (VHS Index Search System) signals are searched in succession, and each time the signals are found, the tape is played for about 10 seconds at the high speed.

2 When the programme to be viewed is reached, press ▷ **(PLAY)**.

- Normal playback now commences.

To stop the operation at any time
Press □ **(STOP)**.

Notes:

- This function may not work properly when recorded programmes run for 15 minutes or less.
- When the timer recording is completed and the video cassette is neither ejected nor replaced with another one and then **SEARCH** is pressed, the intro-jet scan function will not work, and the programme list search function will work instead. (See page 35.)

Making a copy

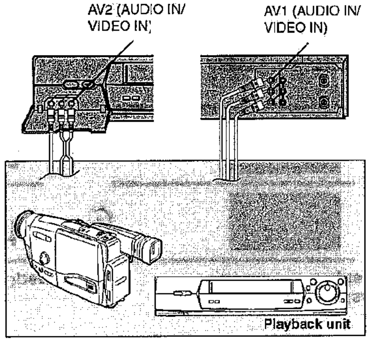
Copying

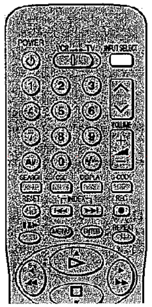
This function can be used to make up an edited tape from other recordings or video sources.
A new scene can be added to the end of previous one.

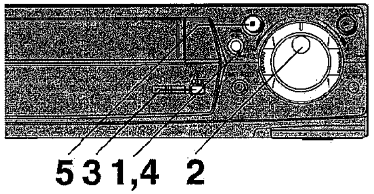
Preparations

- Connect a movie camera or another VCR to this VCR as shown.
- Insert a recorded cassette tape with an intact erasure prevention tab.
- Select the audio source required by pressing **INPUT SELECT** to set A1 or A2.
  A1: Through the AV1 (AUDIO IN/VIDEO IN) sockets.
  A2: Through the AV2 (AUDIO IN/VIDEO IN) sockets on front panel.

Recording VCR





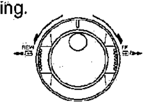


Operations

1 Press **PAUSE/STILL ▮▮** on the recording VCR.

PAUSE /STILL

2 Search for the end of the previous recording.



3 Press **● REC/OTR** to switch the VCR from the pause mode to the recording standby mode.

4 Start the new recording by pressing **PAUSE/STILL ▮▮** again.

PAUSE /STILL

5 Press **STOP ■** to stop recording.

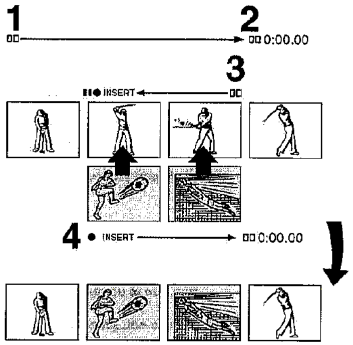
Note:
The new sound will be recorded on both the normal and Hi-Fi sound tracks, only monaural sound recording is possible on the normal sound tracks.

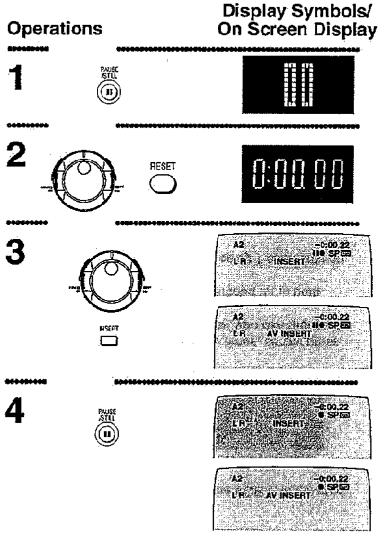
Insert Editing

This is used to substitute one scene for another providing.

Preparations

- Insert a recorded cassette with an intact erasure prevention tab.
- Select the video source required by pressing **INPUT SELECT** to set A1 or A2.


1
2
0:00.00
3
INSERT
4
INSERT
0:00.00


Operations
Display Symbols/
On Screen Display
1
PAUSE STILL
2
RESET
0:00.00
3
INSERT
A2
LR
INSERT
-0:00.22
SP
A2
LR
AV INSERT
-0:00.22
SP
4
PAUSE STILL
A2
LR
INSERT
-0:00.22
SP
A2
LR
AV INSERT
-0:00.22
SP

1. Press **PAUSE/STILL ❚❚** on the recording VCR.

2. Search for the Edit out (ending) point, and set the counter to 0:00.00 by pressing **RESET** on the remote controller.

3. Search for the Edit in (starting) point, and press **INSERT**.
   - If you want to replace the sound on the "normal" audio track, press **A.DUB**, :co. (AV Insert Editing)

   A1:Through the AV1 (AUDIO IN/VIDEO IN) sockets.
   A2:Through the AV2 (AUDIO IN/VIDEO IN) sockets on front panel.

4. Start insert editing by pressing **PAUSE/STILL ❚❚**.
   - The insert editing will finish when the counter reaches 0:00.00.

Note:

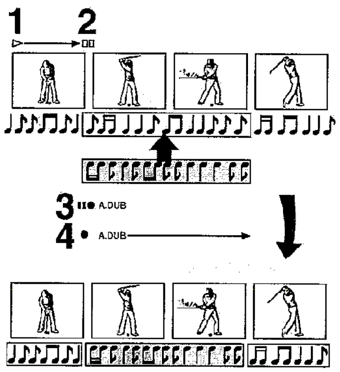
- Insert Editing cannot be used on blank sections of a tape. In this case use Assembly Editing first.
- The new sound will be recorded on the Hi-Fi sound track.
- If **A.DUB** is selected, the new sound will also be recorded on the normal sound track. Only monaural sound recording is possible on the normal sound tracks.

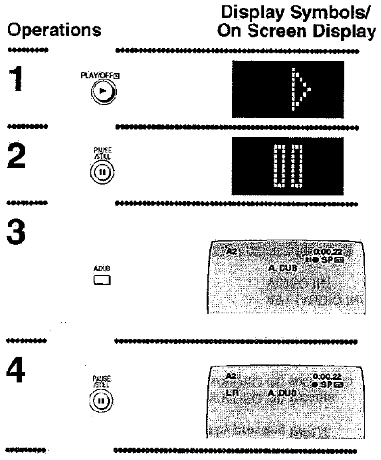
Audio Dubbing

The audio dubbing is made on the normal audio track and erases the original sound on this track. On Hi-Fi audio tracks, however, the original sound is maintained.

Preparations

- Insert a recorded cassette with an intact erasure prevention tab.
- Select the video source required by pressing **INPUT SELECT** to set A1 or A2.


1
2
3
A.DUB
4
A.DUB


Operations
Display Symbols/
On Screen Display
1
PLAY
2
PAUSE STILL
3
A.DUB
A2
A.DUB
0:00.22
SP
4
PAUSE STILL
A2
LR
A.DUB
0:00.22
SP

1. Search for the starting point for audio dubbing.

2. Press **PAUSE/STILL ❚❚** at the starting point.

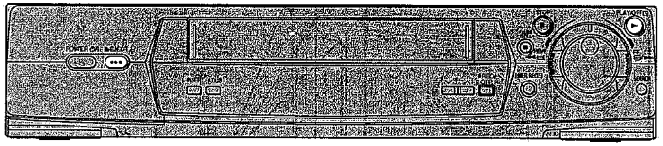
3. Set for audio dubbing by pressing **A.DUB**.
   - On some TVs, the screen image may become unstable or begin to scroll at this point. However, this is not an indication of a malfunction.

   A1:Through the AV1 (AUDIO IN) sockets.
   A2:Through the AV2 (AUDIO IN) sockets on front panel.

4. Start recording the new sound by pressing **PAUSE/STILL ❚❚**.
   - Stop recording by pressing **STOP ■**.

Note:
The new sound will be recorded on the normal sound track of the tape, and the original sound will remain on the Hi-Fi sound track. Only monaural sound recording is possible on the normal sound track.
To hear the new sound, select the normal sound track by pressing **AUDIO OUT**.
To hear the new sound and original sound mixed together, set **AUDIO MIX** to ON. (See page 25.)

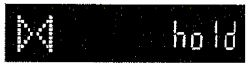
Other Functions



Child Lock Function

This function deactivates all buttons on the VCR and the remote control by holding down **ENTER** and **OFF (+)** simultaneously until the "▷◁ hold" indication appears in the VCR display.

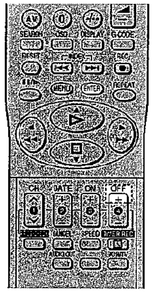
Display Symbol



- If you press a button while the Child Lock function is on, the "▷◁ hold" indication appears in the VCR display to inform you that no operation is possible.

To cancel the Child Lock function

Hold down **ENTER** and **OFF (+)** simultaneously until the "▷◁ hold" indication disappears in the VCR display.



S-VHS Quasi Playback (SQPB)

It is also possible to playback tapes recorded in the S-VHS system.

- Some picture noise may occur depending on the type of tape used.
- It is not possible to fully obtain the high resolution that S-VHS is capable of.
- It is not possible to record in the S-VHS system with this VCR.

NTSC Playback

Tapes recorded in the NTSC system can be played back with this VCR via a PAL system TV.

- Select **NTSC PB SELECT** from the on screen display according to the colour TV system of the TV. (See page 23.)
  on PAL TV: For TVs that can receive PAL signals.
  4.43: For TVs that can receive NTSC 4.43 signals.
  3.58: For TVs that can receive NTSC 3.58 signals.

Note:
On some TVs, the playback picture may roll up or down; adjust this using the V-HOLD control on the TV. TVs not equipped with a V-HOLD control cannot correct this condition. The playback picture may shrink vertically, and black bars may appear both on the top and bottom of the screen. This does not indicate a malfunction.

- During cue, review, still or slow playback, the picture may not be in colour. Alternatively, the top of the TV screen may be distorted.

Note for only NTSC Playback on PAL system TV
This function is designed to allow only the playback of tapes recorded by NTSC signals on a PAL system TV. The NTSC signal is not completely converted to a PAL signal. For this reason, images played back by this function cannot be recorded correctly on other VCRs.

Other Automatic Functions

Automatic Playback

When a video cassette without an erasure prevention tab is inserted, the VCR starts playback automatically.

VCR-off Playback

When the VCR is off, an inserted video cassette can be played back by pressing **PLAY/OFF ⊡ ▶**.

Automatic Rewinding

When the tape reaches its end during recording (except for timer recording) or playback, it will automatically be rewound to the beginning.
During OTR, this function will not work.

Automatic Switching Off and Ejection

When the VCR is switched off, an inserted video cassette can be ejected by simply pressing **≜ EJECT**. The VCR will eject the video cassette and automatically turn itself off again.

Usage Precautions

Please read these precautions before you operate this VCR.

Avoid Sudden Changes in Temperature

If the VCR is suddenly moved from a cold to a warm place, dew may form on the tape and inside the VCR. In this case, the "ꝺ" dew indicator will flash on and off and the VCR will not operate.

Humidity and Dust

Avoid places where there is high humidity or much dust, which may cause damage to internal parts.

Do Not Obstruct the Ventilation Holes

The ventilation holes prevent abnormal increases in temperature. Do not block or cover these holes. Avoid covering the holes with soft materials such as cloth or paper.

Avoid High Temperature

Keep the VCR away from extreme heat sources such as direct sunlight, heating radiators, or closed automobiles.

Avoid Magnets or Magnetized objects

Never bring a magnet or magnetized object near the VCR as it will adversely affect its performance of the VCR.
Keep the VCR away from other equipments as much as possible when using it, avoid any adverse effect on performance for both the VCR and the equipment.

Do Not Place Fingers or Other Objects Inside

Do not attempt to disassemble the VCR. Touching internal parts of this VCR is dangerous, and may cause it serious damage. There are no user serviceable parts inside.

Avoid Water

Keep the VCR away from flower vases, tubs, sinks, etc. If liquids are spilled into the VCR, serious damage could occur. If you spill any liquid into the VCR, consult qualified service personnel.

Lightning

To avoid damage by lightning, disconnect the aerial plug from the VCR.

Cleaning the VCR

Wipe the VCR with a clean, dry cloth. Never use cleaning fluid or other chemicals. Do not use compressed air to remove any dust.

Stacking

Place the VCR in a horizontal position, and do not place anything heavy on it.

If Dew Forms in the VCR

Dew may form in the VCR if:

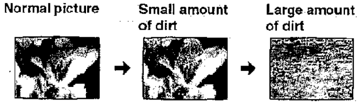
- The VCR is in a room where the heater has just been turned on.
- The VCR is in a room with steam or high humidity.
- The VCR is brought from cold surroundings into a well-heated room.
- The VCR is suddenly brought from cool surroundings, such as an air-conditioned room or car, to a place which is hot and humid.

When dew forms in the VCR, the "ꝺ" dew indicator on the display flashes on and off (The self test indicator "U10" will also appear in the VCR display.) and all the function buttons are made non-operational to protect the tape and the video heads. When the dew indicator flashes, wait until this indicator disappears.

- If dew forms inside the VCR while the VCR is off, it will turn on automatically and the dew indicator will flash on and off. As soon as the dew disappears, the VCR will turn itself off again.

Dirt on the video heads

If the video heads get dirty, pictures will not be recorded or played back clearly.
(See the following conditions.)



If this happens, clean the video heads with a commercially available cleaning cassette.
If the problem still persists after performing above, contact a service personnel to request assistance.

Head cleaning by service agents is not covered by warranty.

4 ADJUSTMENT PROCEDURES

4 1 DISASSEMBLY METHOD

4.1.1. DISASSEMBLY FLOW CHART

This flow chart indicates disassembly steps of the cabinet parts and the circuit boards in order to find the necessary items for servicing.

When reassembling, perform the steps in the reverse order.

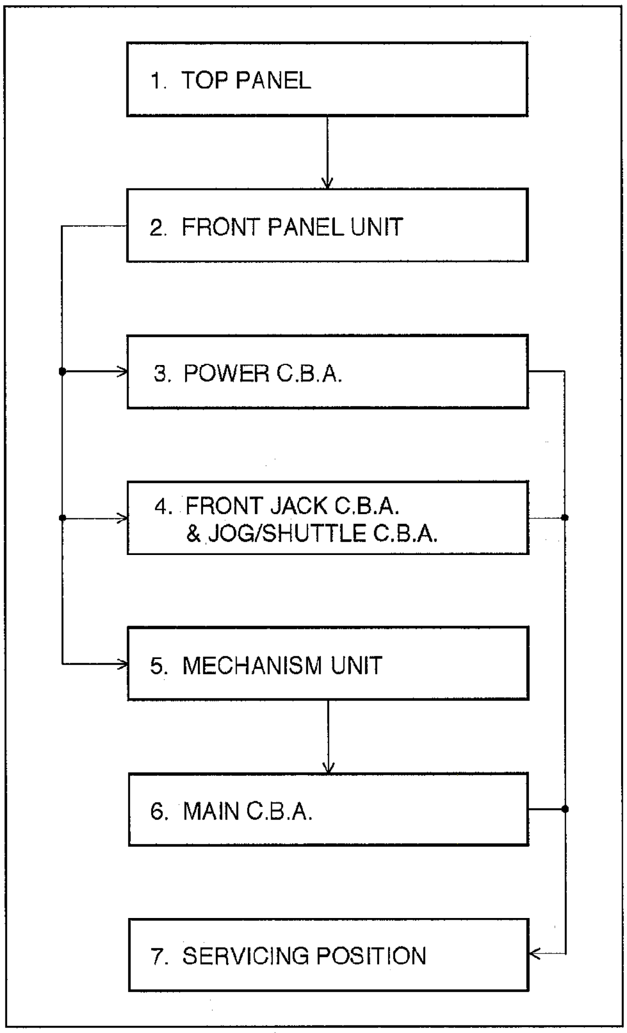

1. TOP PANEL
2. FRONT PANEL UNIT
3. POWER C.B.A.
4. FRONT JACK C.B.A. & JOG/SHUTTLE C.B.A.
5. MECHANISM UNIT
6. MAIN C.B.A.
7. SERVICING POSITION

Fig. D1

4.1.2. DETAIL OF DISASSEMBLY METHOD

1. REMOVAL OF THE TOP PANEL

Remove	2 Screws (A) (NV-HD630A/EA/AM/BD, HD635AM, HD675A/EA/BD)
Remove	4 Screws (A) (NV-HD640AM/EU)

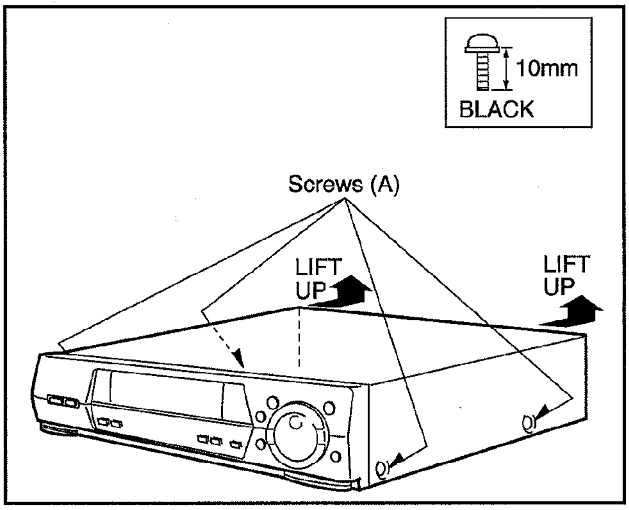

10mm
BLACK
Screws (A)
LIFT UP
LIFT UP

Fig. D2

2. REMOVAL OF THE FRONT PANEL UNIT

Pull out	JOG & SHUTTLE Knob (NV-HD675A/EA/BD)
Unlock	7 Tabs (B)

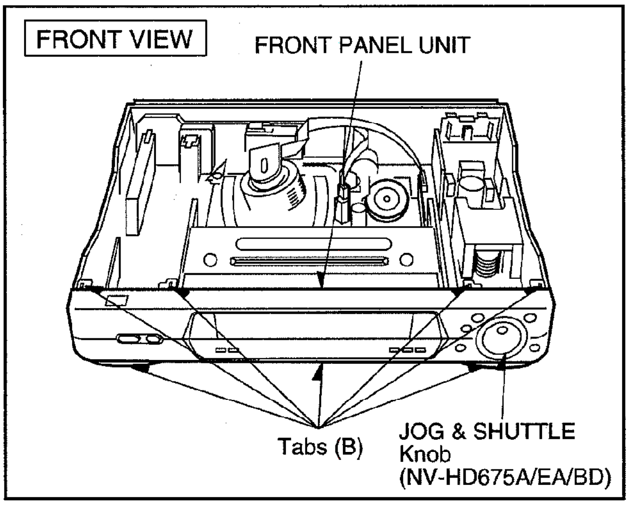

FRONT VIEW
FRONT PANEL UNIT
Tabs (B)
JOG & SHUTTLE Knob (NV-HD675A/EA/BD)

Fig. D3

3. REMOVAL OF THE POWER C.B.A.

Disconnect	Bridge Connector (C)
Unlock	6 Tabs (D)

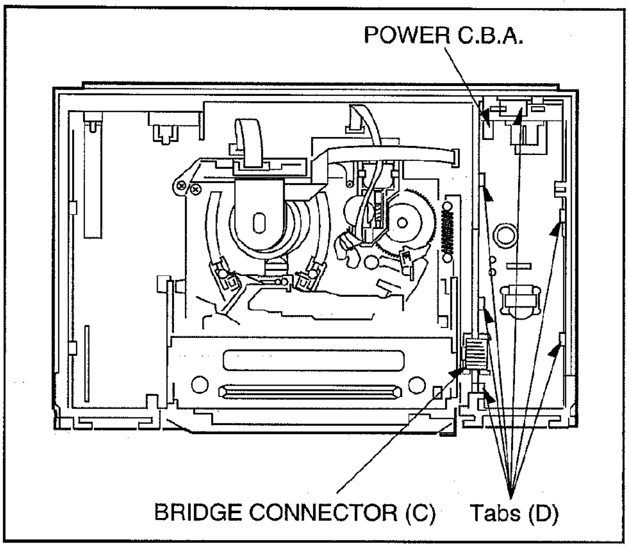

POWER C.B.A.
BRIDGE CONNECTOR (C)
Tabs (D)

Fig. D4

COUTIONS:

Please pay an attention to disconnect the connector (P1001-P1103) which connected between Main C.B.A. and Power supply unit as shown below.

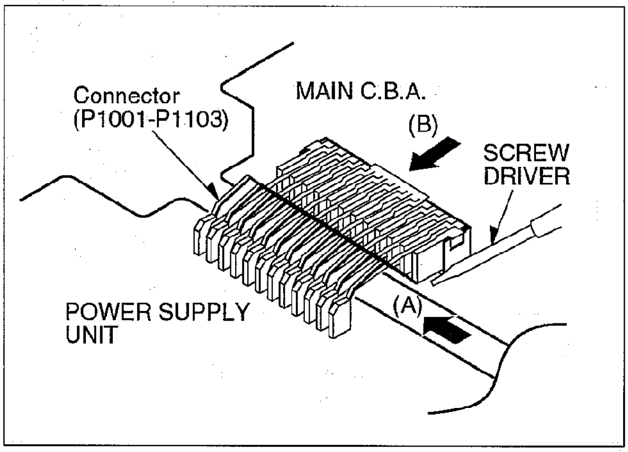

Connector
(P1001-P1103)
MAIN C.B.A.
(B)
SCREW
DRIVER
POWER SUPPLY
UNIT
(A)

Fig. D5

As above drawing, disconnect the connector by SCREW DRIVER from the direction (A).
Do not disconnect from direction (B) because it is possibility to damage the parts located by the connector.

4. REMOVAL OF THE FRONT JACK C.B.A. & JOG/SHUTTLE C.B.A.

REMOVAL OF THE FRONT JACK C.B.A.	
Unlock	Tab (E)
REMOVAL OF THE JOG/SHUTTLE C.B.A. (NV-HD675A/EA/BD)	
Unlock	2 Tabs (F)

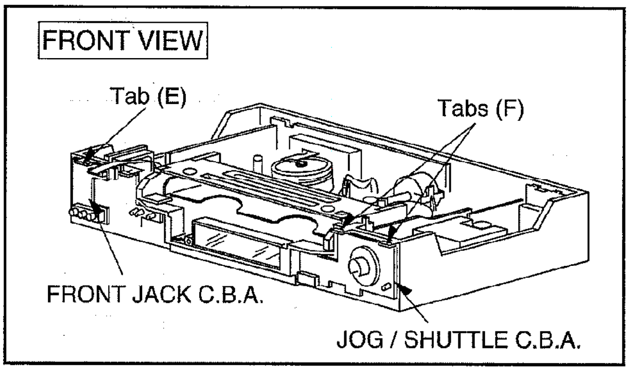

FRONT VIEW
Tab (E)
Tabs (F)
FRONT JACK C.B.A.
JOG / SHUTTLE C.B.A.

Fig. D6

5. REMOVAL OF THE MECHANISM UNIT

Remove	3 Screws (G)
Remove	2 Screws (H)

Note:

Keep pressing 2 stoppers on Cassette Holder Plate and Press Cassette Holder Plate to the rear.

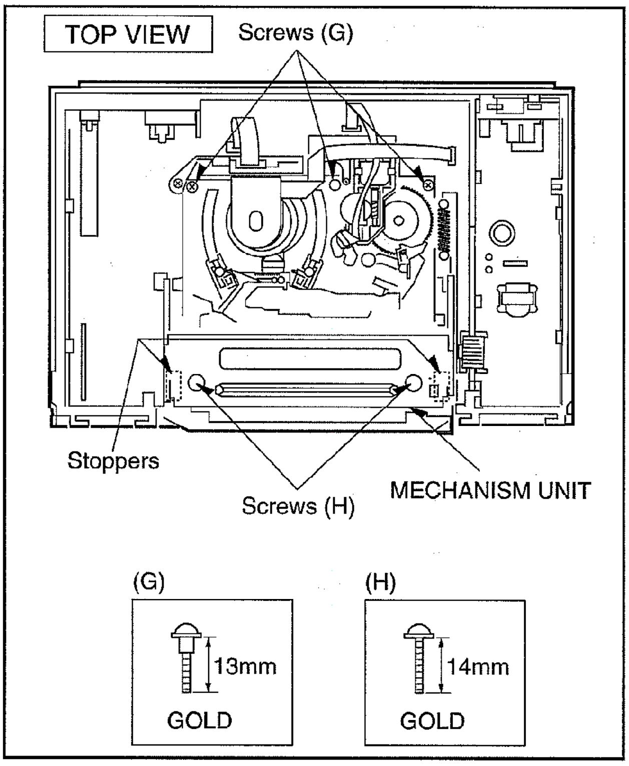

TOP VIEW
Screws (G)
Stoppers
Screws (H)
MECHANISM UNIT
(G)
13mm
GOLD
(H)
14mm
GOLD

Fig. D7

6. REMOVAL OF THE MAIN C.B.A.

Disconnect	Bridge Connector (C)
Remove	Screw (I)
Unlock	7 Tabs (J)

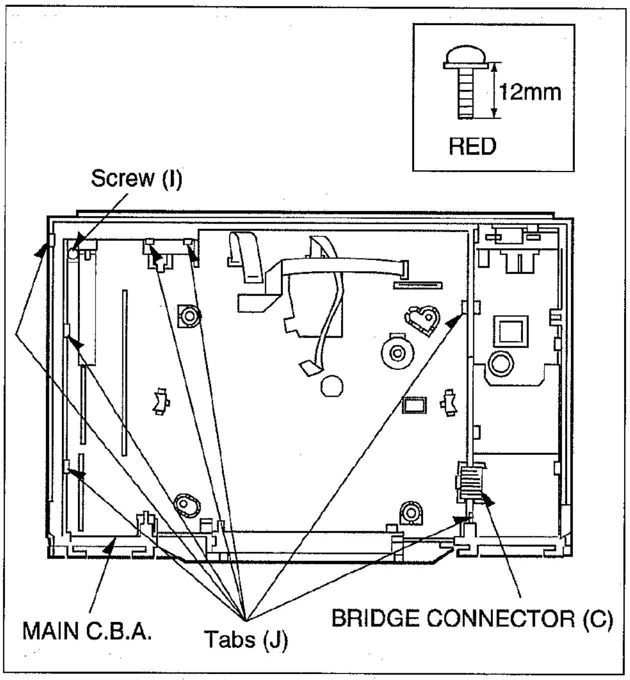


Fig. D8

7. SERVICING POSITION

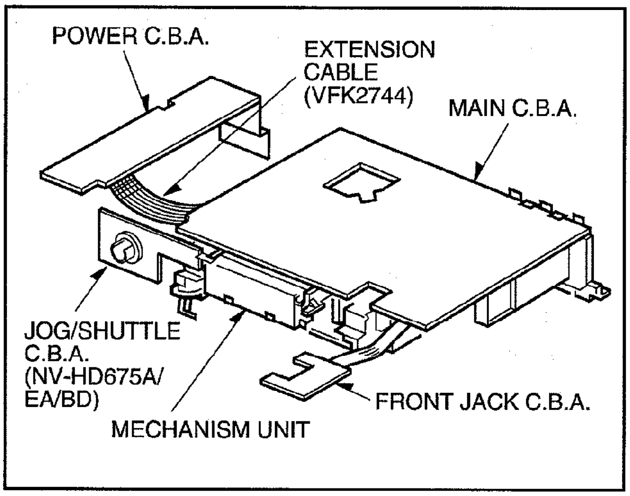

POWER C.B.A.
EXTENSION CABLE (VFK2744)
MAIN C.B.A.
JOG/SHUTTLE C.B.A. (NV-HD675A/EA/BD)
MECHANISM UNIT
FRONT JACK C.B.A.

Fig. D9

4.2. MECHANICAL ADJUSTMENT PROCEDURES

Refer to the Service Manual for Z-Mechanism Chassis. (Order No. VRD9802005C2)

4.3. ELECTRICAL ADJUSTMENT PROCEDURES

4.3.1. PG SHIFTER ADJUSTMENT (AUTOMATIC)

PROCEDURES	FIP Display
Press the FF and EJECT keys simultaneously for 3 seconds (NV-HD630A/EA/AM/BD, HD635AM, HD640AM/EU) Turn the Shuttle Ring to FF and press EJECT key simultaneously 3 seconds. (NV-HD675A/EA/BD)	0 00 00
Press the FF and EJECT keys simultaneously more twice. (NV-HD630A/EA/AM/BD, HD635AM, HD640AM/EU) Turn the Shuttle Ring to FF and press EJECT key simultaneously more twice. (NV-HD675A/EA/BD)	2 00 00
Press the EJECT key for 3 seconds.	2 01 00
Insert the Alignment Tape. (PAL: VFJ81215H3F) (NTSC: VFM8080HQFP)	2 01 00
This adjustment is automatically started. (During the adjustment, the picture will be appeared on the monitor.)	2 01 00
When this Adjustment is terminated, the following operation will be activated. • Adjustment completed: The tape will be ejected. • Adjustment incompleted: "F2*" is indicated on the FIP.Check the Servo/System Control circuit and Cylinder Unit.	
To release Service Mode, press the FF and EJECT keys. simultaneously 6 times until the normal indication on the FIP. (NV-HD630A/EA/AM/BD, HD635AM, HD640AM/EU) To release Service Mode, turn the Shuttle Ring to FF and press EJECT key simultaneously 6 times unit the normal indication on the FIP. (NV-HD675A/EA/BD)	

Fig. E1

5 ABBREVIATIONS

443NT [L]	4.43 NTSC Ⓛ
A. COMP	AUDIO COMPONENT SIGNAL
A. COMPO	AUDIO COMPONENT SIGNAL
A. D.P [L]	AUDIO DUBBING PAUSE Ⓛ
A. D/L [L]	AUDIO DUBBING PAUSE Ⓛ
A. DEF [S]	AUDIO DEFEAT
A. DEF [S] [L]	AUDIO DEFEAT
A. DUB P [L]	AUDIO DUBBING PAUSE Ⓛ
A. DUB [H]	AUDIO DUBBING Ⓗ
A. ERASE	AUDIO ERASE
A. H. SW	AUDIO HEAD SWITCHING PULSE
A. HEAD [R]	AUDIO HEAD (REC)
A. HEAD [W]	AUDIO HEAD (PLAY)
A. IN [L]	AUDIO INPUT (L)
A. IN [R]	AUDIO INPUT (R)
A. MUT [H]	AUDIO MUTE Ⓗ
A. MUTE [H]	AUDIO MUTE Ⓗ
A. OUT [L]	AUDIO OUTPUT (L)
A. OUT [R]	AUDIO OUTPUT (R)
A. RF OUT	AUDIO RF SIGNAL OUTPUT
A/VS/S. DATA	AV SW/SERIAL DATA
AC ONLINE	AC ONLINE
AC. O/EE. H	AC ONLINE/EE Ⓗ
AFC S C	AFC S CURVE
AFC [S]	AFC S CURVE
AFC. DEF	AFC DEFEAT
ARFC OUT	AUDIO RF SIGNAL OUTPUT
ART. V	ARTIFICIAL VERTICAL SYNC SIGNAL
ART. V. MM	ARTIFICIAL VERTICAL SYNC SIGNAL MONO MULTI
ART. V/H/N	ARTIFICIAL VERTICAL SYNC SIGNAL Ⓗ/NORMAL
AT. V/H/N	ARTIFICIAL VERTICAL SYNC SIGNAL
ATSW/TEST/NOR/SE	TEST/NORMAL/SERVICE
AUDIO IN [L]	AUDIO INPUT (L)
AUDIO IN [R]	AUDIO INPUT (R)
AUDIO OUT [L]	AUDIO OUTPUT (L)
AUDIO OUT [R]	AUDIO OUTPUT (R)
AUDIO SELECT [H]	AUDIO SELECT Ⓗ
AUDIO. L	AUDIO (L)
AUDIO. R	AUDIO (R)
AV CNT	AV CONTROL
AV CTL	AV CONTROL
AV CTL/S. CLK	AV CONTROL/SERIAL CLOCK
AV. C.M.	AV CONTROL MODE
AVCNT/METER. R	AV CONTROL/LEVEL METER (R)
AVSW/METER. L	AV SW/LEVEL METER (L)
B MODE. H	B MODE Ⓗ
B.G.P	BURST GATE PULSE
BACKUP 5V	BACK UP 5V
BAND. U.E.	BAND U
BANDVL. D	BAND VL
BI/MI [L]	BILINGUAL/MIX Ⓛ

BIL	BILINGUAL
BIL [L]	BILINGUAL Ⓛ
BIL. [H]	BILINGUAL Ⓗ
BIL/M1 [L]	BILINGUAL Ⓛ
BS CLOCK	BS CLOCK
BS DATA	BS DATA
BS LCH IN	BS L CHANNEL INPUT
BS MIX [H]	BS MIX Ⓗ
BS MON [H]	BS MONITOR Ⓗ
BS MONI [H]	BS MONITOR Ⓗ
BS RCH IN	BS R CHANNEL INPUT
BS VIDEO	BS VIDEO SIGNAL
BS VIDEO/BS1	BS VIDEO SIGNAL
BS [H]	BS Ⓗ
BS. LEVEL	BS LEVEL
BS. M [H]	BS MONITOR Ⓗ
BS/VTR [H]	BS/VTR Ⓗ
BUS CLK	BUS CLOCK
BUS LSN	BUS LISTEN
BUS TLK	BUS TALK
BUZZER	BUZZER
CAP EC	CAPSTAN TORQUE CONTROL
CAP M GND	CAPSTAN MOTOR GND
CAP. ET	CAPSTAN TORQUE CONTROL
CAP. FG1	CAPSTAN FG1 PULSE
CAP. FG2	CAPSTAN FG2 PULSE
CAS. SW	CASSETTE SW
CCN	PLAYBACK CONTROL SIGNAL (–)
CCP	PLAYBACK CONTROL SIGNAL (+)
CHM	CONTROL SIGNAL (+)
CHP	CONTROL SIGNAL (–)
CINEM [L]	CINEMA Ⓛ
CINEMA [L]	CINEMA Ⓛ
CINEMA/MIX	CINEMA/MIX
CKL	RATCH LOCK
CKS	SHIFT LOCK
CL	CLOCK
CLK	CLOCK
CLK (C.G)	CLOCK
CLOCK. IN	CLOCK INPUT
CLP	CLAMP
COL/B/W/NOR	COLOUR/BLACK & WHITE/NORMAL
COLOR [H]	COLOUR Ⓗ
CONV	CONVERTOR
CS	CHIP SELECT
CTL GND	CONTROL GND
CTL HEAD [+]	CONTROL HEAD (+)
CTL HEAD [–]	CONTROL HEAD (–)
CTL [+]	CONTROL HEAD (+)
CTL [–]	CONTROL HEAD (–)
CUE BIAS	CUE BIAS
CURRENT LIM	CURRENT LIMMITER
CYL ET	CYLINDER TORQUE CONTROL

CYL GND	CYLINDER GND
D.F.M. REC [H]	DELAIED FM RECORDING Ⓗ
D. FM REC [L]	DELAIED FM RECORDING Ⓛ
D. GND	DIGITAL GND
D. REC [H]	DELAYED RECORDING Ⓗ
D4/S. LED	D4/STILL LED
D4/STILLED	D4/STILL LED
DAC [CLK]	TUNER DAC (CLOCK)
DAC/FSCS	TUNER DAC/FS CHIP SELECT
DAREC [H]	DELAYED AUDIO RECORDING Ⓗ
DATA	DATA
DECODER [L]	DECODER (L)
DECODER [R]	DECODER (R)
DEW	DEW
DEW SNS	DEW SENSOR
DFMRE [H]	DELAYED FM AUDIO RECORDING Ⓗ
E. REC 5V	EXCEPT RECORDING 5V
EC	ERROR TORQUE CONTROL
ECR	ERROR TORQUE CONTROL REFERENCE VOLTAGE
EDT TRIG [L]	EDIT TRIGGER Ⓛ
EDIT [H]	EDIT Ⓗ
EE [H]	EE Ⓗ
EE [H]/INS [M]	EE Ⓗ/INSERT Ⓜ
EE. VV. TR	EE/VV/TRICK PLAY
EJECT. PO	EJECT POSITION
EJECT/VDET	EJECT/REVERSE SLOW LOCK
ENV. SEL	ENVELOPE SELECT
ENVE. OUT	ENVELOPE OUTPUT
ENVE. SEL	ENVELOPE SELECT
ENV SELECT	ENVELOPE SELECT
EP [H]	LP Ⓗ
EP/LP [H]	LP Ⓗ
EP/LP/SP	LP/SP
EP/SS [H]	LP/SLOW/STILL/STOP Ⓗ
EPROMCS	EPROM CHIP SELECT
EX. REC 5V	EXCEPT RECORDING 5V
FF/REW [L]	FIRST FORWARD/REWIND Ⓛ
FG1 IN	FG1 PULSE INPUT
FG2 IN	FG2 PULSE INPUT
FILTER ADJUSTMENT	FILTER ADJUSTMENT
FLY ERASE [H]	FLYING ERASE HEAD ON Ⓗ
FLY ON [H]	FLYING ERASE HEAD ON Ⓗ
FLY. E [H]	FLYING ERASE HEAD ON Ⓗ
FM MUT [H]	FM AUDIO MUTE Ⓗ
FM MUTE [H]	FM AUDIO MUTE Ⓗ
FM OUT [L]	FM OUTPUT (L)
FM OUT [R]	FM OUTPUT (R)
FM PACK OUT [L]	FM PACK OUTPUT (L)
FM PACK OUT [R]	FM PACK OUTPUT (R)
FM/BS SEL [L]	FM/BS SELECT (L)
FM/BS SEL [R]	FM/BS SELECT (R)
FS. CLK	FS CLOCK
FUL. E [H]	FULL ERASE HEAD ON Ⓗ
FULL. E [H]	FULL ERASE HEAD ON Ⓗ

FULL. E. 12V	FULL ERASE 12V
GND [A]	GND (ANALOG)
GND [TU]	GND (TUNER)
GND/N. SW. 12V	GND/NON SW 12V
H. SYNC	HORIZONTAL SYNC
H. AMP. SW	HEAD AMP SW PULSE
H. P <R>	HEAD PHONE (R)
H. P <L>	HEAD PHONE (L)
H. P GND	HEAD PHONE GND
H. P OUT [L]	HEAD PHONE OUTPUT (L)
H. P OUT [R]	HEAD PHONE OUTPUT (R)
H. SW	HEAD SW PULSE
HEAD PHONE [L]	HEAD PHONE (L)
HEAD PHONE [R]	HEAD PHONE (R)
HEAD SW	HEAD SW
HEATER [+]	HEATER (+)
HEATER [–]	HEATER (–)
HSS	HORIZONTAL SYNC SIGNAL
HTR [+]	HEATER (+)
HTR [–]	HEATER (–)
I RFE	REFERENCE CURRENT
ICL	CONTROL AGC CIRCUIT
IF	INTERMEDIATE FREQUENCY
IN SELA1	INPUT SELECT A1 POSITION
IN SELA2	INPUT SELECT A2 POSITION
IN SELA3	INPUT SELECT A3 POSITION
INS L/R [L]	INSERT Lch/Rch Ⓛ
INS. [H]	INSERT Ⓗ
INSEL A1	INPUT SELECT A1 POSITION
INSEL A2	INPUT SELECT A2 POSITION
INSERT	INSERT
INSERT [H]	INSERT Ⓗ
IO CS	INPUT/OUTPUT CHIP SELECT
JOG1	JOG1
JOG S3 LED/FOWRD	JOG LED/FORWARD LED
JOG/F. LED	JOG LED/FORWARD LED
JSB [H]	JSB Ⓗ
JST. CLCK	JUST CLOCK
JST. CLK	JUST CLOCK
JST. CLOCK	JUST CLOCK
L. OUT	Lch OUTPUT
L. CH [H]	Lch Ⓗ
L. CH [L]	Lch Ⓛ
LED (MAIN)	LED (MAIN)
LED (STEREO)	LED (STEREO)
LED (SUB)	LED (SUB)
LED CKL	LED SERIAL CLOCK
LED CKS	LED SERIAL CLOCK
LED DATA	LED SERIAL DATA
LINE IN 1 [L]	LINE INPUT 1 (L)
LINE IN 1 [R]	LINE INPUT 1 (R)
LINE IN 2 [L]	LINE INPUT 2 (L)
LINE IN 2 [R]	LINE INPUT 2 (R)
LINE IN V	LINE INPUT VIDEO
LINE IN [L]	LINE INPUT (L)

LINE IN [R]	LINE INPUT (R)
LINE OUT [L]	LINE OUTPUT (L)
LINE OUT [R]	LINE OUTPUT (R)
LP [H]	LP Ⓗ
LPTRI [L]	LP TRICK PLAY Ⓛ
Lch/A. DUB	Lch/AUDIO DUBBING
M GND	MOTOR GND
M REG	MOTOR REGULATOR
MAIN OUT	MAIN OUTPUT
MAIN [L]	MAIN Ⓛ
MAIN/MONO	MAIN/MONAURAL
MAX IN	MAXIMAM INPUT
MES [H]	MESECAM Ⓗ
MESE [H]	MESECAM Ⓗ
MESE [L]	MESECAM Ⓛ
METER 5V	LEVEL METER 5V
METER [L]	LEVEL METER (L)
METER [R]	LEVEL METER (R)
METER. L/AVS	LEVEL METER (L)
METER. R/AVC	LEVEL METER (R)
MI/BI [L]	MIX Ⓗ/BILIGUAL
MIC GND	MIC GND
MIC IN	MIC INPUT
MIC IN [L]	MIC INPUT (L)
MIC IN [R]	MIC INPUT (R)
MIC [H]	MIC Ⓗ
MIX [H]	MIX Ⓗ
MIX [H]/CINEMA [L]	MIX Ⓗ/CINEMA SOUND Ⓛ
MIX/CINE	MIX Ⓗ/CINEMA SOUND Ⓛ
MIX/CINEMA [L]	MIX Ⓗ/CINEMA SOUND Ⓛ
MN. H/M. L	MONAURAL Ⓗ/MAIN Ⓛ
MN. H/MAI. L	MONAURAL Ⓗ/MAIN Ⓛ
MN2/MES. L	MONAURAL 2/MESECAM Ⓛ
MODE SEL	AUDIO MODE SELECT
MODE SW	AUDIO MODE SW
MODE. S. IN	AUDIO MODE SELECT INPUT
MODE. S. OUT	AUDIO MODE SELECT OUTPUT
MONO [H]	MONAURAL Ⓗ
MONO [H]/MAIN [L]	MONAURAL Ⓗ/MAIN Ⓛ
MONO2 [L]	MONAURAL 2
MONO2/MESE [FM(L)]	MONAURAL 2/MESECAM (FM Ⓛ)
MOTOR GND	MOTOR GND
MUTE	MUTE
N. A. REC [L]	NORMAL AUDIO RECORDING
N. SW 12V	NON SW 12V
N. SW. 5. DET	NON SW 5V DETECT
NICAM	NICAM
NICAM [L]	NICAM Ⓛ
NOL [H]	PAL Ⓗ/4.43 NTSC Ⓜ/3.58 NTSC Ⓛ
NOR/SOFT [H]	NORMAL/SOFT TAPE PLAY Ⓗ
NORMAL [H]	NORMAL Ⓗ
NR BIAS	NR BIAS
NTSC [L]	NTSC Ⓛ
OCH	CONTROL AGC CIRCUIT
OUT	OUTPUT

P-OFF [H]	POWER OFF Ⓗ
P-OFF [L]	POWER OFF Ⓛ
P. FAIL	POWER FAILURE DETECT
P. OFF [H]	POWER OFF Ⓗ
P. OFF [L]	POWER OFF Ⓛ
PAL [H]	PAL Ⓗ
PAL [L]/NTSC [H]	PAL Ⓛ/NTSC Ⓗ
PB ADJ OUT	PLAYBACK ADJUST OUTPUT
PB OUT	PLAYBACK OUTPUT
PB. H	PLAYBACK Ⓗ
PFG	PG/FG
PHOTSN +B	PHOTO SENSOR +B
PICT. CNT	PICTURE CONTROL
PLAY LED/RVS LED	PLAY LED/REVERSE LED
PLAY. PO	PLAY POSITION
PLAY/R. LED	PLAY LED/REVERSE LED
PLY/DEW	PLAY/DEW Ⓗ
POWER OFF [L]	POWER OFF Ⓛ
PREROLL [H]	PREROLL Ⓗ
PWRFAIL	POWER FAILURE DETECT
R. CH [H]	Rch Ⓗ
R. CH [L]	Rch Ⓛ
R. ST	RESET
R/S/F	REVERSE Ⓗ/STOP Ⓜ/FORWARD Ⓛ
RCH [H]	Rch Ⓗ
REC 12V	RECORDING 12V
REC CHROMA	RECORDING CHROMINANCE SIGNAL
REC H	RECORDING Ⓗ
REC IN	RECORDING INPUT
REC OUT [L]	RECORDING OUTPUT Ⓛ
REC START	RECORDING START
REC VR [C]	RECORDING VOLUME (COMMON)
REC VR [L]	RECORDING VOLUME (L)
REC VR [R]	RECORDING VOLUME (R)
REC Y	RECORDING LUMINANCE SIGNAL
REC [H]	RECORDING Ⓗ
REC. C	RECORDING CHROMINANCE SIGNAL
REC. Y	RECORDING LUMINANCE SIGNAL
REC/EE CTL	RECORDING/EE CONTROL
REEL-T	REEL PULSE (TAKE-UP)
REEL-S	REEL PULSE (SUPPLY)
REGULATOR FILTER	REGULATOR FILTER
RESET	RESET
REV M F/R	REVIEW MOTOR FORWARD/REVERSE
REV M V1	REVIEW MOTOR V1
REV M V2	REVIEW MOTOR V2
REV MOTOR F/R	REVIEW MOTOR FORWARD/REVERSE
REV MOTOR V1	REVIEW MOTOR V1
REV MOTOR V2	REVIEW MOTOR V2
REV MOTOR [+]	REVIEW MOTOR (+)
REV MOTOR [–]	REVIEW MOTOR (+)
REV. M. GND	REVIEW MOTOR GND
RF. CHROMA	RF CHROMINANCE SIGNAL

RF OUT	RF OUTPUT
RF Y	RF LUMINANCE SIGNAL
RF. Y. IN	RF LUMINANCE SIGNAL INPUT
RF. Y. OUT	RF LUMINANCE SIGNAL OUTPUT
ROTAR. SW	ROTARY SW
ROTARY	ROTARY SW
RST	RESET
RST [L]	RESET Ⓛ
Rch/INST	Rch/INSERT
S IN	SERIAL DATA INPUT
S OUT	SERIAL DATA OUTPUT
S-PHOTO	SUPPLY PHOTO TRANSISTOR
S-RL. PLS	SUPPLY REEL PULSE
S. CLK	SERIAL CLOCK
S. CLK/AV	SERIAL CLOCK/AV
S. DATA	SERIAL DATA
S. DATA/A	SERIAL DATA
S. PHOTO	SUPPLY PHOTO TRANSISTOR
S. TAB [L]	SAFETY TAB SW ON Ⓛ
S/P/N	SECAM/PAL/NTSC
SC IN	SERIAL CLOCK INPUT
SC OUT	SERIAL CLOCK OUTPUT
SCK SELECT	SERIAL CLOCK SELECT
SEL OUT [L]	SELECT OUTPUT (L)
SEL OUT [R]	SELECT OUTPUT (R)
SHUTTLE 1	SHUTTLE 1
SIF	SOUND INTERMEDIATE FREQUENCY
SLMUT [H]	INPUT SELECT MUTE Ⓗ
SLNID [+]	SOLENOID (+)
SLNID [–]	SOLENOID (–)
SLW TR. MM	SLOW TRACKING MONO MULTI
SLW TR. REF	SLOW TRACKING REFERENCE VOLTAGE
SNS. GND	SENSOR GND
SOFT [H]	SOFT TAPE PLAY Ⓗ
SOFT [H]/NORMAL	SOFT TAPE PLAY Ⓗ/NORMAL Ⓗ
SOLENOID ON [L]	SOLENOID ON Ⓛ
SP [H]	SP Ⓗ
SP/L/SLP	SP/LP
SSS [L]	SLOW/STILL/STOP
STEREO LED	STEREO LED
STEREO [H]	STEREO Ⓗ
STEREO [L]	STEREO Ⓛ
STOP. PO	STOP POSITION
STOP/5V	STOP POSITION/5V
STOP1/TAPE SEL	STOP1 POSITION/TAPE SELECT
STOP1/PAL:ST	STOP1 POSITION/PAL
STOP2. PO	STOP 2 POSITION
STOP2/S-TAB	STOP 2 POSITION/SAFETY TAB SW
STREO [H]	STEREO Ⓗ
SUB BIAS	SUB BIAS
SUB. SW	SUB SW
SVHS CAS [L]	S-VHS CASSETTE Ⓛ
SW. 5. DET	SW 5V DETECT
SYNC [L]	SYNC Ⓛ

SYSCON 5V	SYSTEM CONTROL 5V
SYSTEM	SYSTEM SW
T-PHOTO	TAKE-UP PHOTO TRANSISTOR
T-RL. PLS	TAKE-UP REEL PULSE
T. BUSCLK	TIMER BUS CLOCK
T. BUSLSN	TIMER BUS LISTEN
T. BUSTLK	TIMER BUS TALK
T. END [L]	TAPE END Ⓛ
T. PHOTO	TAKE-UP PHOTO TRANSISTOR
TAPE END [L]	TAPE END Ⓛ
TAPE END [L]/CAM	TAPE END Ⓛ/CAMERA PAUSE
TEST	TEST MODE
TPZ	TRAPEZOIDAL WAVE CIRCUIT
TRIC [L]	TRIC PLAY Ⓛ
TRICK [L]	TRIC PLAY Ⓛ
TRK. ENV	AUTO TRACKING ENVELOPE DETECT
TU. AUDIO	TUNER AUDIO
TU. GND	TUNER GND
TU. V. IN	TUNER VIDEO SIGNAL INPUT
TU. VIDEO	TUNER VIDEO
TUN NOR IN	TUNER NORMAL INPUT
TUN R	TUNER AUDIO (R)
TUN. AUDIO IN	TUNER AUDIO INPUT
TUNER 12V	TUNER 12V
TUNER L	TUNER AUDIO (L)
TUNER V IN	TUNER VIDEO SIGNAL INPUT
TUNER [L]	TUNER AUDIO (L)
TUNER [N]	TUNER AUDIO (NORMAL)
TUNER [R]	TUNER AUDIO (R)
TUNER. 12	TUNER 12V
TUOFF [H]	TUNER OFF Ⓗ
TV. AUDIO	TV AUDIO
TV/VTR	TV/VTR
TXTON [L]	TEXT ON Ⓛ
U. REG45V	UNREGULATOR 45V
UNREG	UNREGULATOR
UNREG19V	UNREGULATOR 19V
V. REF	REFERENCE VOLTAGE
V. EE [H]	VIDEO EE Ⓗ
V. EE [L]	VIDEO EE Ⓛ
VCO REF	REFERENCE OSCILLATER
VD. IN	VIDEO SIGNAL INPUT
VD. OUT	VIDEO SIGNAL OUTPUT
VIDEO EE [L]	VIDEO EE Ⓛ
VIDEO IN	VIDEO SIGNAL INPUT
VIDEO OUT	VIDEO SIGNAL OUTPUT
VM	MOTOR VOLTAGE
VM DOWN [L]	MOTOR VOLTAGE DOWN Ⓛ
VSS	VERTICAL SYNC SIGNAL
VTR [H]	VTR Ⓗ
VTR. 12V	VTR 12V
X IN	OSCILLATOR INPUT
X OUT	OSCILLATOR OUTPUT

6 INPUT/OUTPUT CHART

6.1. INPUT/OUTPUT CHART FOR IC6007

<table>
<tr><th>Pin No.</th><th>In/Out</th><th>Port Name</th><th>Function</th></tr>
<tr><td>1</td><td>I</td><td>P.FAIL.IN(L)</td><td>Power failure detection input.</td></tr>
<tr><td>2</td><td>O</td><td>SP(L)</td><td>This port supplies low during SP mode.</td></tr>
<tr><td>3</td><td>I</td><td>S.REEL.PULSE</td><td>Supply reel pulse input.</td></tr>
<tr><td>4</td><td>I</td><td>T.REEL.PULSE</td><td>Take-up reel pulse input.</td></tr>
<tr><td>5</td><td>I</td><td>I.R.</td><td>Remote Controller pulse input.</td></tr>
<tr><td>6</td><td>O</td><td>P.FAIL.OUT(L)</td><td>Power failure detection output.</td></tr>
<tr><td>7</td><td>O</td><td>AAA(L)</td><td>This port supplies low during audio IC automatic adjustment.</td></tr>
<tr><td>8</td><td>O</td><td>FM MUTE(H)</td><td>Hi-Fi audio mute control output.</td></tr>
<tr><td>9</td><td>O</td><td>VIDEO EE(H)</td><td>EE:Low
VV:High</td></tr>
<tr><td>10</td><td>O</td><td>FL DRV CS(L)</td><td>FIP driver chip selection.</td></tr>
<tr><td>11</td><td>O</td><td>SQ PB(H)</td><td>This port is high during S-VHS playback mode.</td></tr>
<tr><td>12</td><td>O</td><td>VTR(H)/TV(L)</td><td>VTR/TV mode switching control.</td></tr>
<tr><td>13</td><td>O</td><td>CH H/L</td><td>Channel switching control.</td></tr>
<tr><td>14</td><td>O</td><td>IC.CLK</td><td>FIP driver serial clock output.</td></tr>
<tr><td>15</td><td>I</td><td>IC.LSN</td><td>FIP driver serial data input.</td></tr>
<tr><td>16</td><td>O</td><td>IC.TLK</td><td>FIP driver serial data output.</td></tr>
<tr><td>17</td><td>I/O</td><td>IIC.TALK/LSN</td><td>IIC serial data in/output</td></tr>
<tr><td>18</td><td>O</td><td>IIC.CLK</td><td>IIC serial clock output</td></tr>
<tr><td>19</td><td></td><td>GND</td><td>GND</td></tr>
<tr><td>20</td><td>O</td><td>HALF WAVE(H)</td><td>Capstan torque switching control.
1. FF/REW Mode
Capstan rotation speed is 1300 rpm or more without VHS-C cassette:High
Capstan rotation speed is less than 1300 rpm without VHS-C cassette:High impedance
VHS-C cassette:High imedance
2. Except FF/REW Mode:High impedance</td></tr>
<tr><td>21</td><td>O</td><td>CURRENT LIMIT</td><td>Capstan motor current limitter output.</td></tr>
<tr><td>22</td><td>O</td><td>CAP R/F</td><td>Capstan rotation direction control.
Reverse : High
Forward : Low</td></tr>
<tr><td>23</td><td>O</td><td>VIDEO H.SW</td><td>Video head switching signal output.</td></tr>
<tr><td>24</td><td>O</td><td>ART V/H/N</td><td>This port supplies artificial vertical sync signal to stabilize the picture in special playback mode.</td></tr>
<tr><td>25</td><td>I</td><td>RESET(L)</td><td>This port is low during reset.</td></tr>
<tr><td>26</td><td>O</td><td>D.A.REC(H)</td><td>Audio signal recording on/off control.</td></tr>
<tr><td>27</td><td>O</td><td>D.REC(H)</td><td>Video signal recording on/off control.</td></tr>
<tr><td>28</td><td>O</td><td>CUR. EMPH(H)</td><td>This port supplies high during a certain time from starting the recording.
<table>
<tr><th>REC MODE</th><th>OUTPUT TIMING</th><th>REC MODE</th><th>OUTPUT TIMING</th></tr>
<tr><td>NTSC 2H</td><td>6 sec</td><td>PAL 3H</td><td>9 sec</td></tr>
<tr><td>NTSC 4H</td><td>12 sec</td><td>---</td><td>---</td></tr>
<tr><td>NTSC 6H</td><td>18 sec</td><td>PAL 6H</td><td>18 sec</td></tr>
</table></td></tr>
<tr><td>29</td><td>O</td><td>128Hz</td><td>Oscillator output for main clock adjustment.</td></tr>
<tr><td>30</td><td>O</td><td>FULL ERASE(L)</td><td>Full erase on/off control.
ON:Low
OFF:High</td></tr>
<tr><td>31</td><td>O</td><td>BIAS(L)</td><td>Audio signal recording on/off control.</td></tr>
<tr><td>32</td><td>O</td><td>A H SW</td><td>Audio head switching signal output.</td></tr>
<tr><td>33</td><td>O</td><td>CAP ET</td><td>Capstan torque control.</td></tr>
<tr><td>34</td><td>O</td><td>CYL ET</td><td>Cylinder torque control.</td></tr>
<tr><td>35</td><td></td><td>GND</td><td>GND</td></tr>
<tr><td>36</td><td></td><td>VDD</td><td>Digital 5V</td></tr>
<tr><td>37</td><td>O</td><td>14.32MHz OUT</td><td>Oscillator output.</td></tr>
<tr><td>38</td><td>I</td><td>14.32MHz IN</td><td>Oscillator input.</td></tr>
<tr><td>39</td><td></td><td>GND</td><td>GND</td></tr>
</table>

Fig.MP1

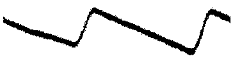
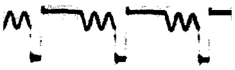
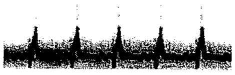
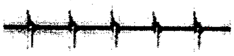
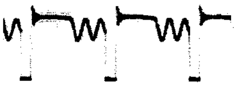
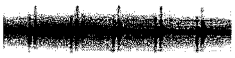
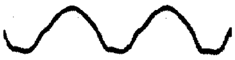
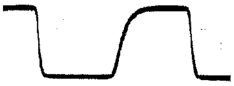
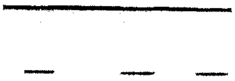
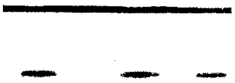
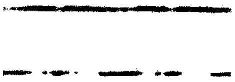
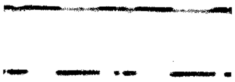
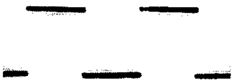
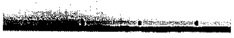
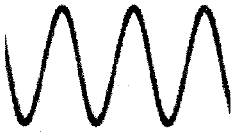
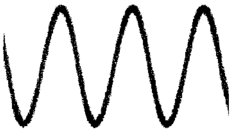
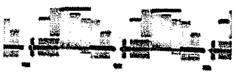
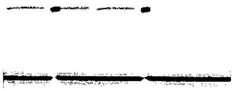
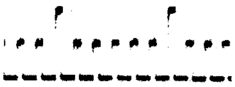
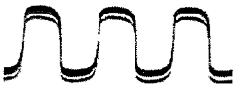
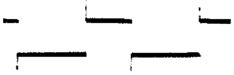
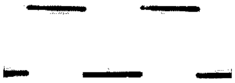
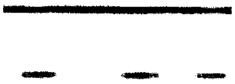
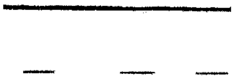
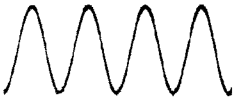
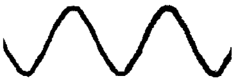
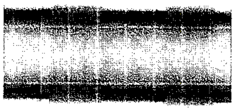
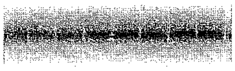
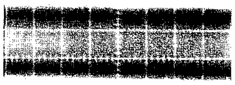
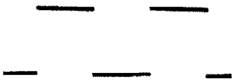
<table>
<tr><th>Pin No.</th><th>In/Out</th><th>Port Name</th><th>Function</th></tr>
<tr><td>40</td><td>I</td><td>32KHz IN</td><td>Oscillator input.</td></tr>
<tr><td>41</td><td>O</td><td>32KHz OUT</td><td>Oscillator output.</td></tr>
<tr><td>42</td><td>I</td><td>CLK SLCT</td><td>Operating mode select.</td></tr>
<tr><td>43</td><td>I</td><td>D FM REC(H)</td><td>HI-FI audio recording on/off control.</td></tr>
<tr><td>44</td><td>I</td><td>JOG B</td><td>JOG operation input</td></tr>
<tr><td>45</td><td>I</td><td>JOG A</td><td>JOG operation input</td></tr>
<tr><td>46</td><td>I</td><td>ABS NORMAL(L)</td><td>The audio is compulsory normal mode when this port receives low in playback mode.</td></tr>
<tr><td>47</td><td>O</td><td>CV OUT</td><td>Composite video signal output.</td></tr>
<tr><td>48</td><td></td><td>GND</td><td>GND</td></tr>
<tr><td>49</td><td>I</td><td>CV IN</td><td>Composite video signal input.</td></tr>
<tr><td>50</td><td>I</td><td>CV IN2</td><td>Composite video signal input.</td></tr>
<tr><td>51</td><td></td><td>+5V</td><td>+5V</td></tr>
<tr><td>52</td><td>O</td><td>AFCC</td><td>AFC low pass filter output.</td></tr>
<tr><td>53</td><td>I</td><td>AFCLPF</td><td>AFC low pass filter input.</td></tr>
<tr><td>54</td><td>O</td><td>FSC</td><td>4 muliply low pass filter output.</td></tr>
<tr><td>55</td><td>I</td><td>FSCLPF</td><td>4 muliply low pass filter input.</td></tr>
<tr><td>56</td><td>O</td><td>DSP CONT1</td><td>Audio surround mode switching control.</td></tr>
<tr><td>57</td><td>O</td><td>DSP CONT2</td><td>Audio surround mode switching control.</td></tr>
<tr><td>58</td><td>O</td><td>CHARA+HEM</td><td>OSD digital data output.</td></tr>
<tr><td>59</td><td>O</td><td>I/DK/BG/M</td><td>I/M:Low
BG/DK:High Impedance</td></tr>
<tr><td>60</td><td>O</td><td>CHARA</td><td>OSD digital data output.</td></tr>
<tr><td>61</td><td>O</td><td>AVPB(H)</td><td>This port supplies high during OSD MENU mode and VV mode.</td></tr>
<tr><td>62</td><td>O</td><td>AUDIO MUTE(H)</td><td>Audio mute control output.</td></tr>
<tr><td>63</td><td></td><td>NC</td><td>Not Used</td></tr>
<tr><td>64</td><td></td><td>GND</td><td>GND</td></tr>
<tr><td>65</td><td>I</td><td>CYL PFG</td><td>Cylinder PFG input.</td></tr>
<tr><td>66</td><td></td><td>GND</td><td>GND</td></tr>
<tr><td>67</td><td>O</td><td>CAP FG OUT</td><td>Capstan FG output.</td></tr>
<tr><td>68</td><td>I</td><td>CAP FG</td><td>Capstan FG input.</td></tr>
<tr><td>69</td><td>O</td><td>OREF</td><td>Op amp output for 1/2 VDD reference.</td></tr>
<tr><td>70</td><td>I</td><td>IREF</td><td>Op amp input for 1/2 VDD reference.</td></tr>
<tr><td>71</td><td></td><td>GND</td><td>GND</td></tr>
<tr><td>72</td><td>I</td><td>CTL AMP REF</td><td>Control amp reference input.</td></tr>
<tr><td>73</td><td></td><td>+5V</td><td>+5V</td></tr>
<tr><td>74</td><td>I/O</td><td>CTL HEAD(+)</td><td>Control signal (+) in/output.</td></tr>
<tr><td>75</td><td>I/O</td><td>CTL HEAD(-)</td><td>Control signal (-) in/output.</td></tr>
<tr><td>76</td><td>O</td><td>PB CTL OUT</td><td>Control amp output.</td></tr>
<tr><td>77</td><td>I</td><td>NC</td><td>Not Used</td></tr>
<tr><td>78</td><td>O</td><td>EX FF/REW(L)</td><td>This port supplies low during except FF and REW modes.</td></tr>
<tr><td>79</td><td>I</td><td>MODEL CODE1</td><td>Model code input.</td></tr>
<tr><td>80</td><td>I</td><td>MODEL CODE2</td><td>Model code input.</td></tr>
<tr><td>81</td><td></td><td>NC</td><td>Not Used</td></tr>
<tr><td>82</td><td>O</td><td>LOAD(H)</td><td>This port supplies high during the mechanism is loaded.</td></tr>
<tr><td>83</td><td>O</td><td>UNLOAD(H)</td><td>This port supplies high during the mechanism is unloaded.</td></tr>
<tr><td>84</td><td>I</td><td>DEW SNS</td><td>Dew detection input.</td></tr>
<tr><td>85</td><td>I</td><td>NORM/SERV/T2/TEST</td><td>Normal/Service/Test2/Test mode selection.
<table>
<tr><th>INPUT VOLTAGE</th><th>MODE</th></tr>
<tr><td>More than 4.0V</td><td>Normal</td></tr>
<tr><td>2.5V - 4.0V</td><td>Service</td></tr>
<tr><td>1.0V - 2.5V</td><td>Test 2</td></tr>
<tr><td>Less than 1.0V</td><td>Test</td></tr>
</table></td></tr>
</table>

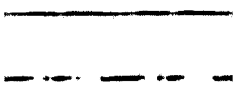
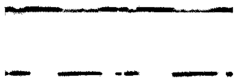
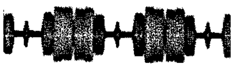
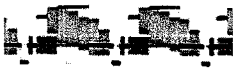
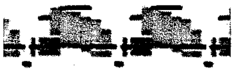
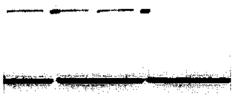
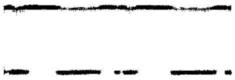
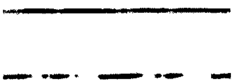
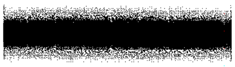
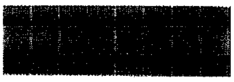
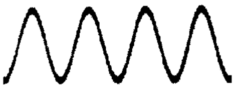
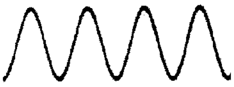
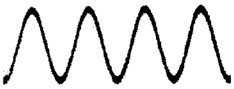
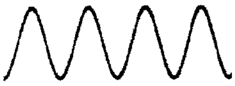
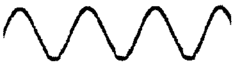
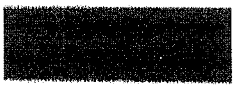
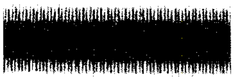
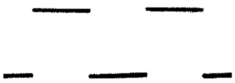
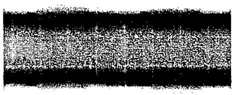
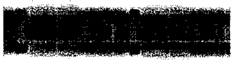
Fig.MP2

<table>
<tr><th>Pin No.</th><th>In/Out</th><th>Port Name</th><th>Function</th></tr>
<tr><td>86</td><td>I</td><td>T-PHOT</td><td>This port receives less than 2.4V when Take-up photo sensor detects the tape beginning.</td></tr>
<tr><td>87</td><td>I</td><td>S-PHOT</td><td>This port receives less than 2.4V when Supply photo sensor detects the tape end.</td></tr>
<tr><td>88</td><td>I</td><td>T.S.CURVE</td><td>Tuner S curve input.</td></tr>
<tr><td>89</td><td>I</td><td>TRACKING ENVE</td><td>Playback envelope input for auto tracking adjustment.</td></tr>
<tr><td>90</td><td>I</td><td>POS SW1</td><td rowspan="3">Mechanism position detection input.
<table>
<tr><th>P.SW 3</th><th>P.SW 2</th><th>P.SW 1</th><th>Position(Mode) Name</th></tr>
<tr><td>0</td><td>0</td><td>0</td><td>EJECT</td></tr>
<tr><td>0</td><td>0</td><td>1</td><td>CASSETTE DOWN</td></tr>
<tr><td>0</td><td>1</td><td>0</td><td>REV,REV SLOW</td></tr>
<tr><td>0</td><td>1</td><td>1</td><td>MID(LOADING/UNLOADING)</td></tr>
<tr><td>1</td><td>0</td><td>0</td><td>PLAY/REC,STILL/PAUSE,CUE,FWD SLOW,STOP3*1</td></tr>
<tr><td>1</td><td>0</td><td>1</td><td>STOP</td></tr>
<tr><td>1</td><td>1</td><td>0</td><td>FF/REW</td></tr>
<tr><td>1</td><td>1</td><td>1</td><td>INTERMEDIATE</td></tr>
</table>
(*1) The Pinch Roller is on the Capstan motor shaft.</td></tr>
<tr><td>91</td><td>I</td><td>POS SW2</td></tr>
<tr><td>92</td><td>I</td><td>POS SW3</td></tr>
<tr><td>93</td><td>I</td><td>S.TAB(L)</td><td>This port receives low while the cassette tape with safety tab is inserted.</td></tr>
<tr><td>94</td><td>I</td><td>GND</td><td>GND</td></tr>
<tr><td>95</td><td>O</td><td>POWER SAVE(H)</td><td>FIP on/off control during power off.
FIP off:High
FIP on:Low</td></tr>
<tr><td>96</td><td>O</td><td>POWER OFF(H)</td><td>Power on/off control.</td></tr>
<tr><td>97</td><td>O</td><td>SLOW MODE (H)</td><td>Not Used</td></tr>
<tr><td>98</td><td>O</td><td>ROTARY SW</td><td>Rotary switching signal output.</td></tr>
<tr><td>99</td><td>O</td><td>H.A.SW</td><td>Head amp switching signal output.
1. 4 Head model
LP/EP:High
SP:Low
2. 2 Head model
Low</td></tr>
<tr><td>100</td><td>I</td><td>ENVE SELECT</td><td>This port receives the playback envelope signal level to select the video head in special playback mode.</td></tr>
</table>

Fig.MP3

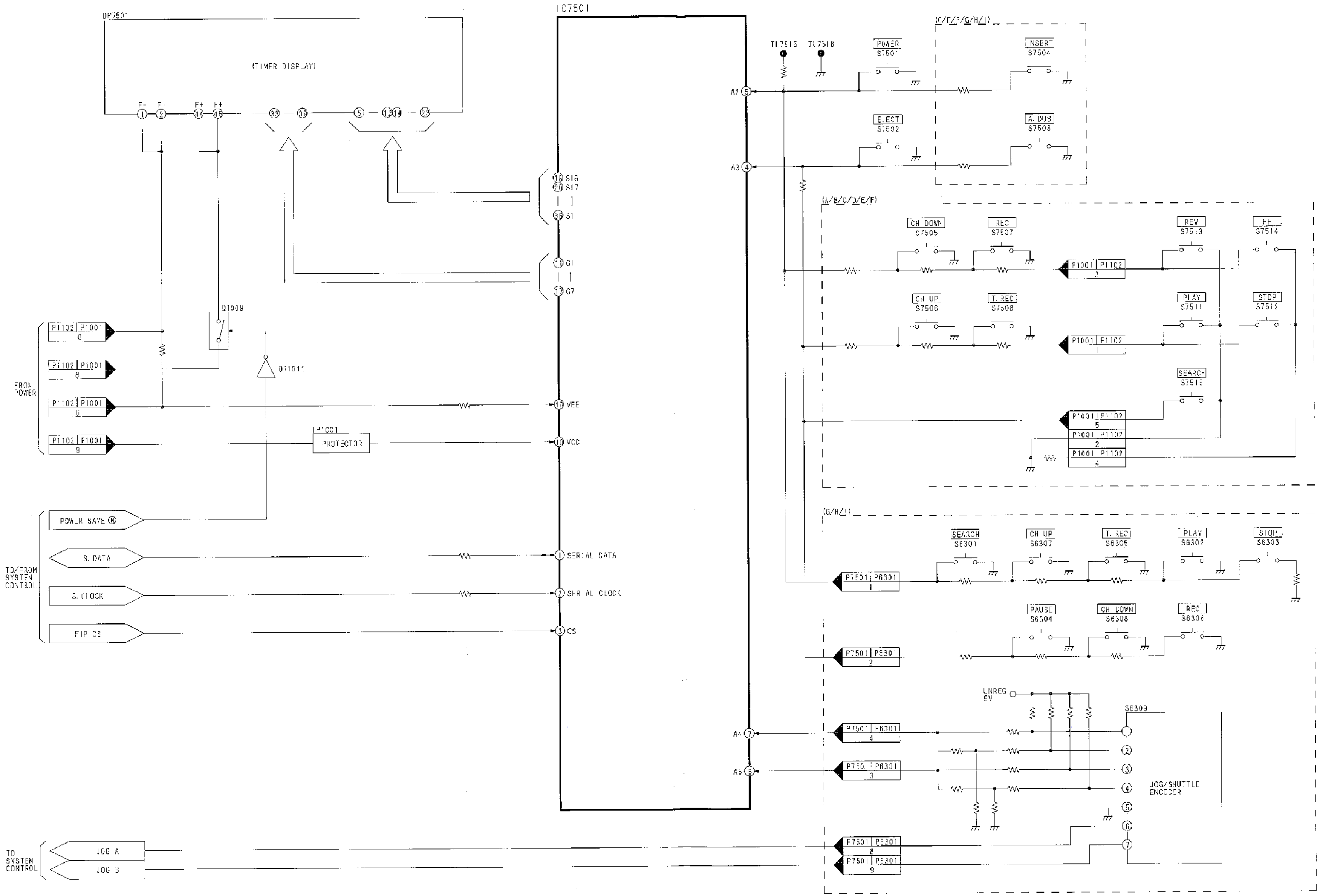
7 WAVEFORM TABLE

 T1150-3 STOP 4.0Vp-p (2msec. div.)	 T1150-7 STOP 100Vp-p (5μsec. div.)	 IC1150-1 STOP 2.0Vp-p (10μsec. div.)	 IC1150-2 STOP 15Vp-p (10μsec. div.)	 IC1150-3 STOP 450Vp-p (5μsec. div.)
 IC1150-4 STOP 2.0Vp-p (10μsec. div.)	 IC2501-1,2,16 REC 9.0Vp-p (2msec. div.)	 IC6007-3,4 FF/REW 5.0Vp-p (1msec. div.)	 IC6007-14 REC 4.8Vp-p (10msec. div.)	 IC6007-15,16 REC 4.8Vp-p (10msec. div.)
 IC6007-17 REC 4.8Vp-p (10msec. div.)	 IC6007-18 REC 4.8Vp-p (10msec. div.)	 IC6007-23 REC 5.0Vp-p (10msec. div.)	 IC6007-24 PAUSE 4.8Vp-p (10msec. div.)	 IC6007-38 REC 3.2Vp-p (50nsec. div.)
 IC6007-40 REC 1.0Vp-p (20μsec. div.)	 IC6007-47,49 REC/PLAY 2.0Vp-p (20μsec. div.)	 IC6007-50 REC/PLAY 5.0Vp-p (20μsec. div.)	 IC6007-65 REC 5.0Vp-p (10msec. div.)	 IC6007-67 REC 0.8Vp-p (1msec. div.)
 IC6007-74,75 REC 6.0Vp-p (10msec. div.)	 IC6007-98 REC 5.0Vp-p (10msec. div.)	 IC7501-1 STOP 4.8Vp-p (10msec. div.)	 IC7501-2 STOP 4.8Vp-p (10msec. div.)	 IC3001-2 REC 1.5Vp-p (5msec. div.)
 IC3001-4 PLAY 5.0Vp-p (5msec. div.)	 IC3001-14 REC 0.4Vp-p (5msec. div.)	 IC3001-15 PLAY 0.6Vp-p (20μsec. div.)	 IC3001-20 PLAY 150mVp-p (20μsec. div.)	 IC3001-24 REC/PLAY 5.0Vp-p (10msec. div.)

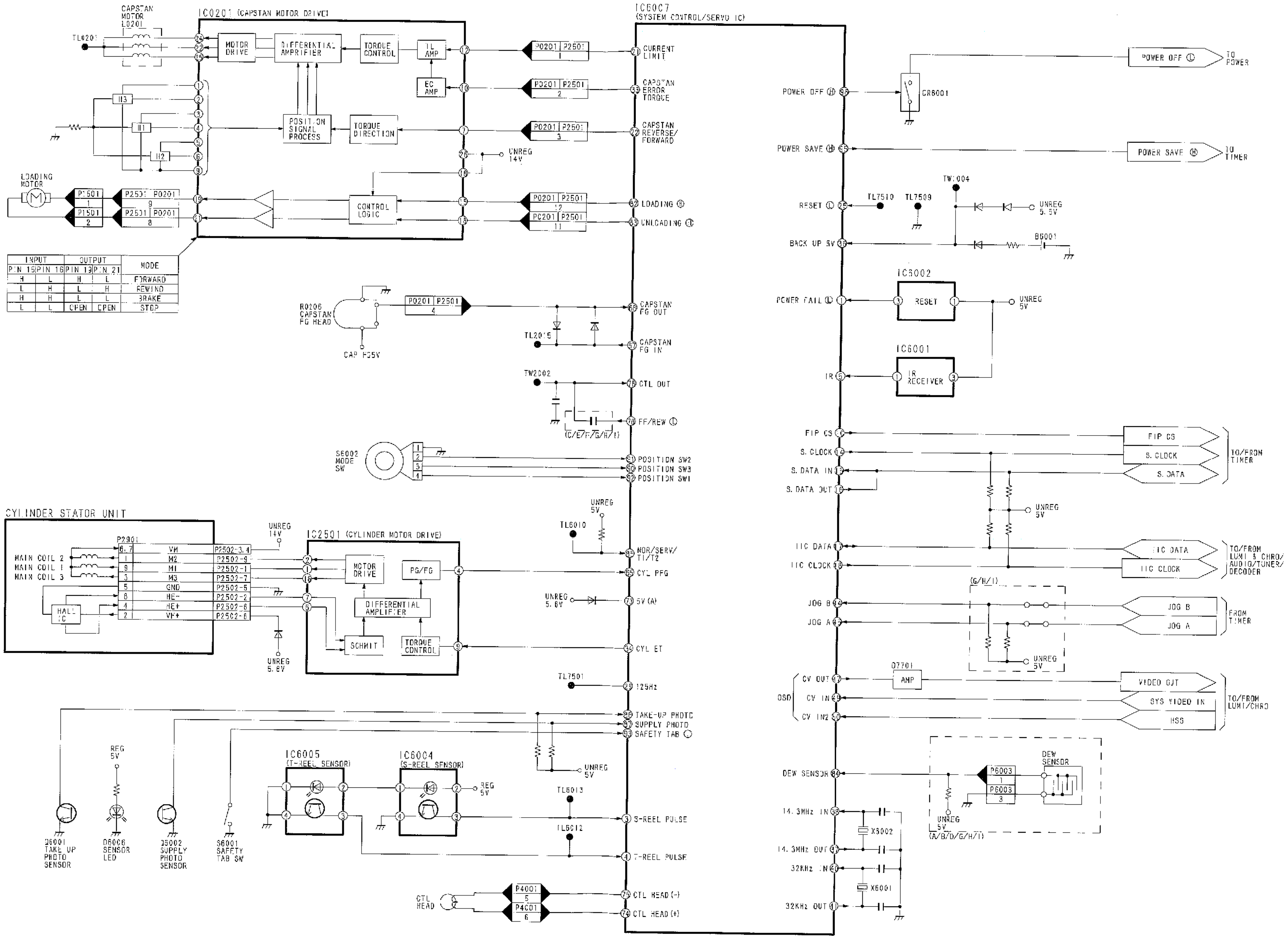
 IC3001-37 REC/PLAY 4.8Vp-p (10msec. div.)	 IC3001-38 REC/PLAY 4.8Vp-p (10msec. div.)	 IC3001-42,43 PLAY 0.4Vp-p (20µsec. div.)	 IC3001-48 REC 1.0Vp-p (20µsec. div.)	 IC3001-52 REC/PLAY 2.0Vp-p (20µsec. div.)
 IC3001-56 REC/PLAY 5.0Vp-p (20µsec. div.)	 IC4501-5 REC/PLAY 4.8Vp-p (10msec. div.)	 IC4501-6 REC/PLAY 4.8Vp-p (10msec. div.)	 IC4501-13 PLAY 1.5Vp-p (20µsec. div.)	 IC4501-21 REC 0.2Vp-p (20µsec. div.)
 IC4501-26 REC/PLAY 250mVp-p (5msec. div.)	 IC4501-28 REC/PLAY 1.2Vp-p (5msec. div.)	 IC4501-29,30 REC/PLAY 1.2Vp-p (5msec. div.)	 IC4501-31,40,41 REC/PLAY 0.2Vp-p (5msec. div.)	 Q4002-C REC Q4004-C REC 9.0Vp-p (5µsec. div.)
 P501-3 REC 0.3Vp-p (20µsec. div)	 P501-4 REC 1.2Vp-p (20µsec. div)	 P501-9 REC/PLAY 5.0Vp-p (10msec. div.)	 P501-10 REC 0.3Vp-p (5msec. div.)	 P501-11 PLAY 0.5Vp-p (5msec. div.)

8 BLOCK DIAGRAMS

8.1. TIMER BLOCK DIAGRAM


DP7501
(TIMER DISPLAY)
F-
F-
F+
F+
IC7501
A2
A3
A4
A5
S16
S17
S1
G1
G7
VEE
VCC
SERIAL DATA
SERIAL CLOCK
CS
Q1009
QR1011
IP1001
PROTECTOR
P1102 P1001 10
P1102 P1001 8
P1102 P1001 6
P1102 P1001 9
FROM POWER
POWER SAVE ®
S. DATA
S. CLOCK
FIP CS
TO/FROM SYSTEM CONTROL
JOG A
JOG B
TO SYSTEM CONTROL
TL7515
TL7516
POWER S7501
EJECT S7502
(C/E/F/G/H/I)
INSERT S7504
A. DUB S7503
(A/B/C/D/E/F)
CH DOWN S7505
REC S7507
CH UP S7506
T. REC S7508
REW S7513
FF S7514
PLAY S7511
STOP S7512
SEARCH S7515
P1001 P1102 3
P1001 P1102 1
P1001 P1102 5
P1001 P1102 2
P1001 P1102 4
(G/H/I)
SEARCH S6301
CH UP S6307
T. REC S6305
PLAY S6302
STOP S6303
PAUSE S6304
CH DOWN S6308
REC S6306
P7501 P6301 1
P7501 P6301 2
P7501 P6301 4
P7501 P6301 3
P7501 P6301 8
P7501 P6301 9
UNREG 5V
S6309
JOG/SHUTTLE ENCODER

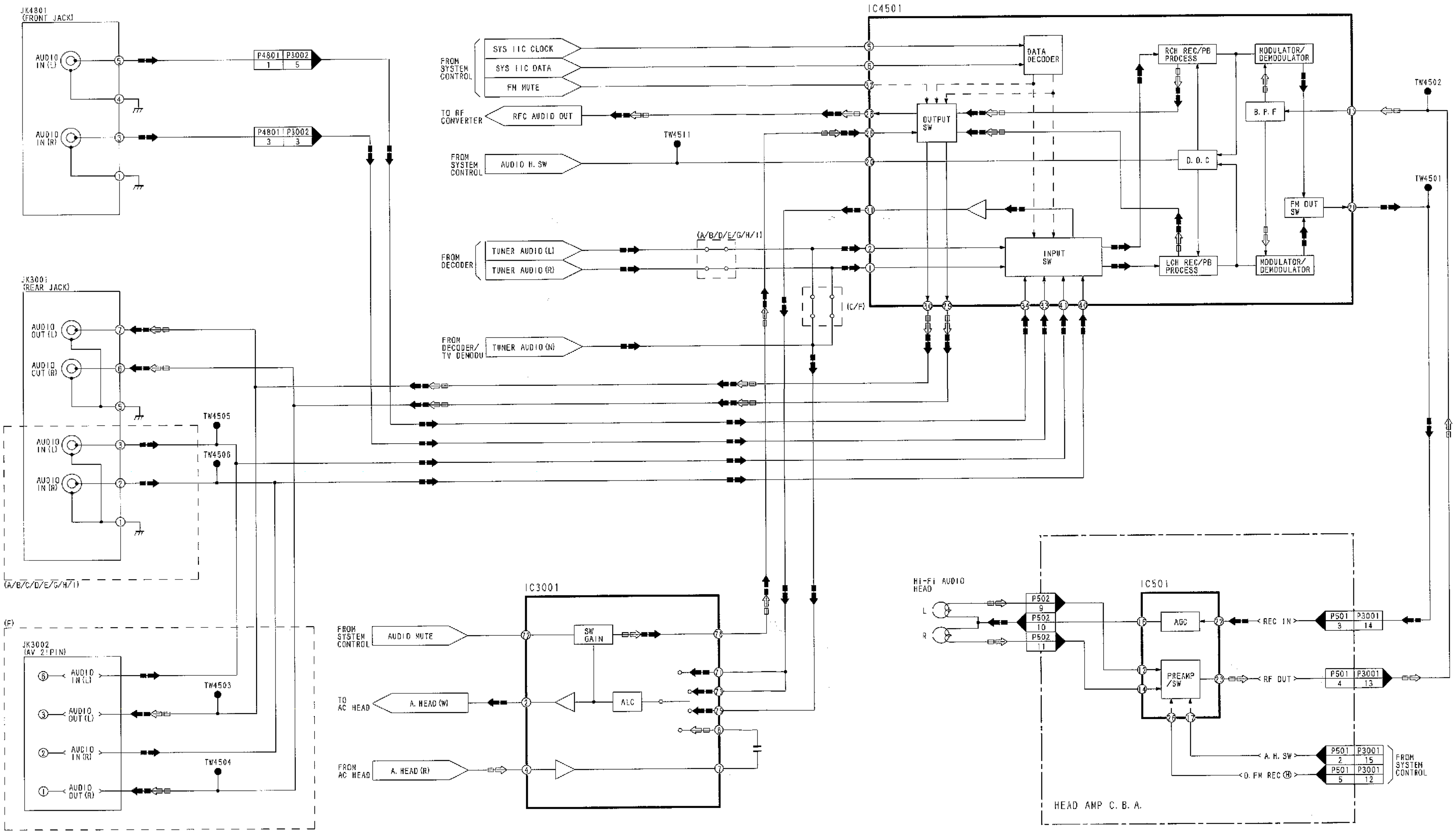
8 2 SYSTEM CONTROL & SERVO BLOCK DIAGRAM


CAPSTAN MOTOR L0201
TL0201
IC0201 (CAPSTAN MOTOR DRIVE)
MOTOR DRIVE
DIFFERENTIAL AMPRIFIER
TORQUE CONTROL
TL AMP
EC AMP
POSITION SIGNAL PROCESS
TORQUE DIRECTION
CONTROL LOGIC
H1
H2
H3
UNREG 14V
LOADING MOTOR
P1501
P2501
P0201
IC6007 (SYSTEM CONTROL/SERVO IC)
CURRENT LIMIT
CAPSTAN ERROR TORQUE
CAPSTAN REVERSE/ FORWARD
LOADING Ⓗ
UNLOADING Ⓗ
R0206 CAPSTAN FG HEAD
CAP FG5V
TL2015
CAPSTAN FG OUT
CAPSTAN FG IN
TW2002
CTL OUT
FF/REW Ⓛ
(C/E/F/G/H/I)
S6002 MODE SW
POSITION SW2
POSITION SW3
POSITION SW1
CYLINDER STATOR UNIT
P2901
MAIN COIL 2
MAIN COIL 1
MAIN COIL 3
HALL IC
VM
M2
M1
M3
GND
HE-
HE+
VF+
P2502-3, 4
P2502-9
P2502-1
P2502-7
P2502-5
P2502-2
P2502-6
P2502-8
UNREG 14V
UNREG 5.6V
IC2501 (CYLINDER MOTOR DRIVE)
MOTOR DRIVE
PG/FG
DIFFERENTIAL AMPLIFIER
SCHMIT
TORQUE CONTROL
UNREG 5V
TL6010
NOR/SERV/ T1/T2
CYL PFG
5V (A)
CYL ET
TL7501
125Hz
TAKE-UP PHOTO
SUPPLY PHOTO
SAFETY TAB Ⓛ
REG 5V
IC6005 (T-REEL SENSOR)
IC6004 (S-REEL SENSOR)
TL6013
TL6012
S-REEL PULSE
T-REEL PULSE
Q6001 TAKE UP PHOTO SENSOR
D6006 SENSOR LED
Q6002 SUPPLY PHOTO SENSOR
S6001 SAFETY TAB SW
CTL HEAD
P4001
CTL HEAD (-)
CTL HEAD (+)
POWER OFF Ⓗ
QR6001
POWER OFF Ⓛ
TO POWER
POWER SAVE Ⓗ
TO TIMER
TW1004
TL7510
TL7509
RESET Ⓛ
UNREG 5.5V
BACK UP 5V
B6001
IC6002
RESET
POWER FAIL Ⓛ
IC6001
IR RECEIVER
IR
FIP CS
S. CLOCK
S. DATA IN
S. DATA OUT
S. DATA
TO/FROM TIMER
IIC DATA
IIC CLOCK
TO/FROM LUMI & CHRO/ AUDIO/TUNER/ DECODER
(G/H/I)
JOG B
JOG A
FROM TIMER
Q7701
AMP
OSD
CV OUT
CV IN
CV IN2
VIDEO OUT
SYS VIDEO IN
HSS
TO/FROM LUMI/CHRO
DEW SENSOR
P6003
(A/B/D/G/H/I)
14.3MHz IN
14.3MHz OUT
32KHz IN
32KHz OUT
X6002
X6001

INPUT		OUTPUT		MODE
PIN 15	PIN 16	PIN 19	PIN 21	
H	L	H	L	FORWARD
L	H	L	H	REWIND
H	H	L	L	BRAKE
L	L	OPEN	OPEN	STOP

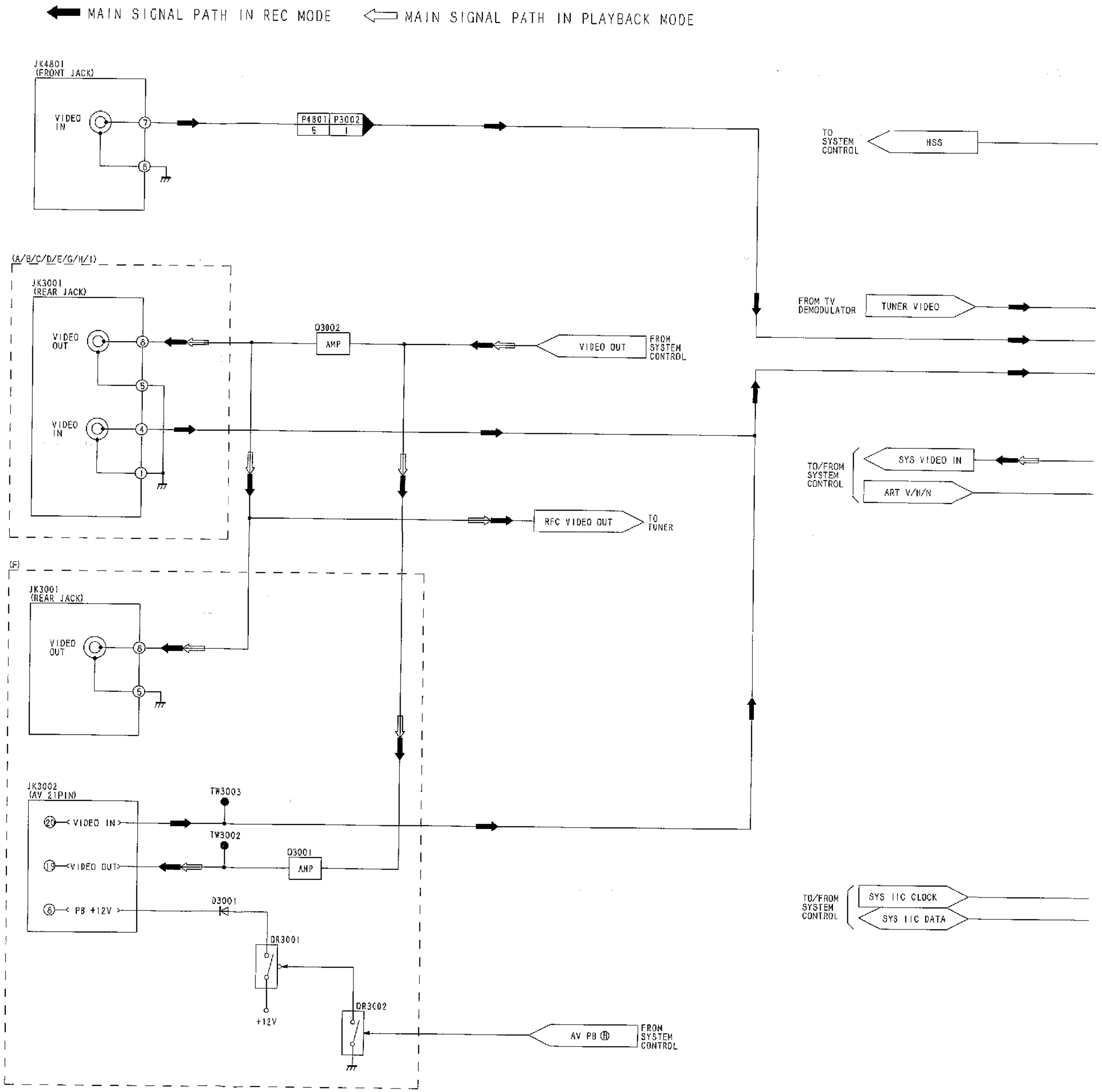
8 3 AUDIO BLOCK DIAGRAMS

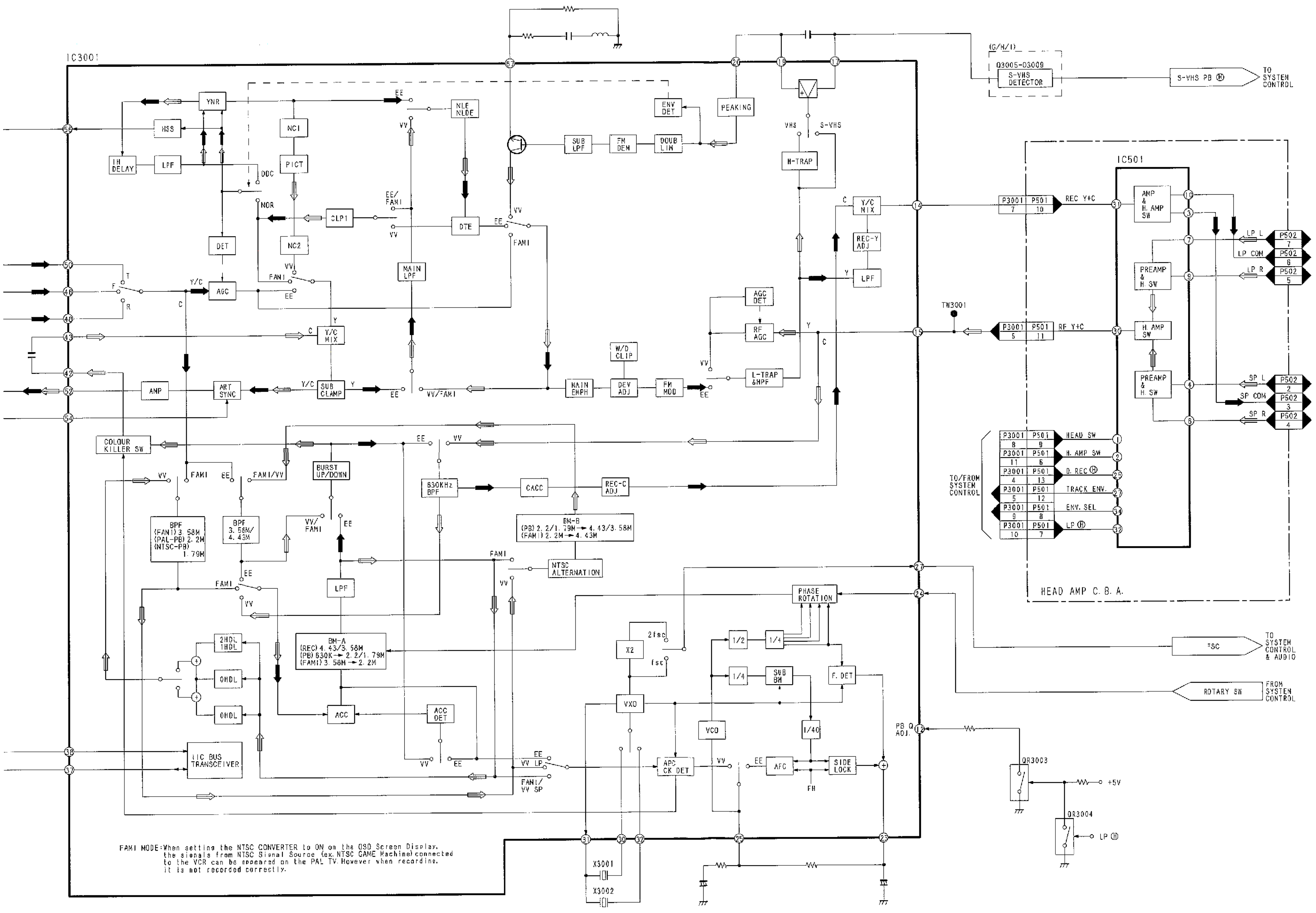
◀■ MAIN SIGNAL PATH IN REC MODE ◁□ MAIN SIGNAL PATH IN PLAYBACK MODE


JK4801 (FRONT JACK)
AUDIO IN (L)
AUDIO IN (R)
P4801 P3002 1 5
P4801 P3002 3 3
JK3001 (REAR JACK)
AUDIO OUT (L)
AUDIO OUT (R)
AUDIO IN (L)
AUDIO IN (R)
TW4505
TW4506
(A/B/C/D/E/G/H/I)
(F)
JK3002 (AV 21PIN)
AUDIO IN (L)
AUDIO OUT (L)
AUDIO IN (R)
AUDIO OUT (R)
TW4503
TW4504
FROM SYSTEM CONTROL
SYS IIC CLOCK
SYS IIC DATA
FM MUTE
TO RF CONVERTER
RFC AUDIO OUT
TW4511
FROM SYSTEM CONTROL
AUDIO H. SW
(A/B/D/E/G/H/I)
FROM DECODER
TUNER AUDIO (L)
TUNER AUDIO (R)
(C/F)
FROM DECODER/ TV DEMODU
TUNER AUDIO (N)
IC4501
DATA DECODER
OUTPUT SW
INPUT SW
RCH REC/PB PROCESS
LCH REC/PB PROCESS
D. O. C
MODULATOR/ DEMODULATOR
B. P. F
FM OUT SW
MODULATOR/ DEMODULATOR
TW4502
TW4501
IC3001
FROM SYSTEM CONTROL
AUDIO MUTE
SW GAIN
ALC
TO AC HEAD
A. HEAD (W)
FROM AC HEAD
A. HEAD (R)
Hi-Fi AUDIO HEAD
L
R
P502 9
P502 10
P502 11
IC501
AGC
PREAMP /SW
REC IN
RF OUT
A. H. SW
O. FM REC Ⓗ
P501 P3001 3 14
P501 P3001 4 13
P501 P3001 2 15
P501 P3001 5 12
FROM SYSTEM CONTROL
HEAD AMP C. B. A.

]

8 4 LUMINANCE & CHROMINANCE BLOCK DIAGRAM


MAIN SIGNAL PATH IN REC MODE
MAIN SIGNAL PATH IN PLAYBACK MODE
JK4801
(FRONT JACK)
VIDEO IN
7
6
P4801
P3002
5
1
TO SYSTEM CONTROL
HSS
FROM TV DEMODULATOR
TUNER VIDEO
(A/B/C/D/E/G/H/I)
JK3001
(REAR JACK)
VIDEO OUT
VIDEO IN
8
5
4
1
Q3002
AMP
VIDEO OUT
FROM SYSTEM CONTROL
TO/FROM SYSTEM CONTROL
SYS VIDEO IN
ART V/H/N
RFC VIDEO OUT
TO TUNER
(F)
JK3001
(REAR JACK)
VIDEO OUT
8
5
JK3002
(AV 21PIN)
20
VIDEO IN
19
VIDEO OUT
8
PB +12V
TW3003
TW3002
Q3001
AMP
D3001
QR3001
+12V
QR3002
AV PB Ⓗ
FROM SYSTEM CONTROL
TO/FROM SYSTEM CONTROL
SYS IIC CLOCK
SYS IIC DATA

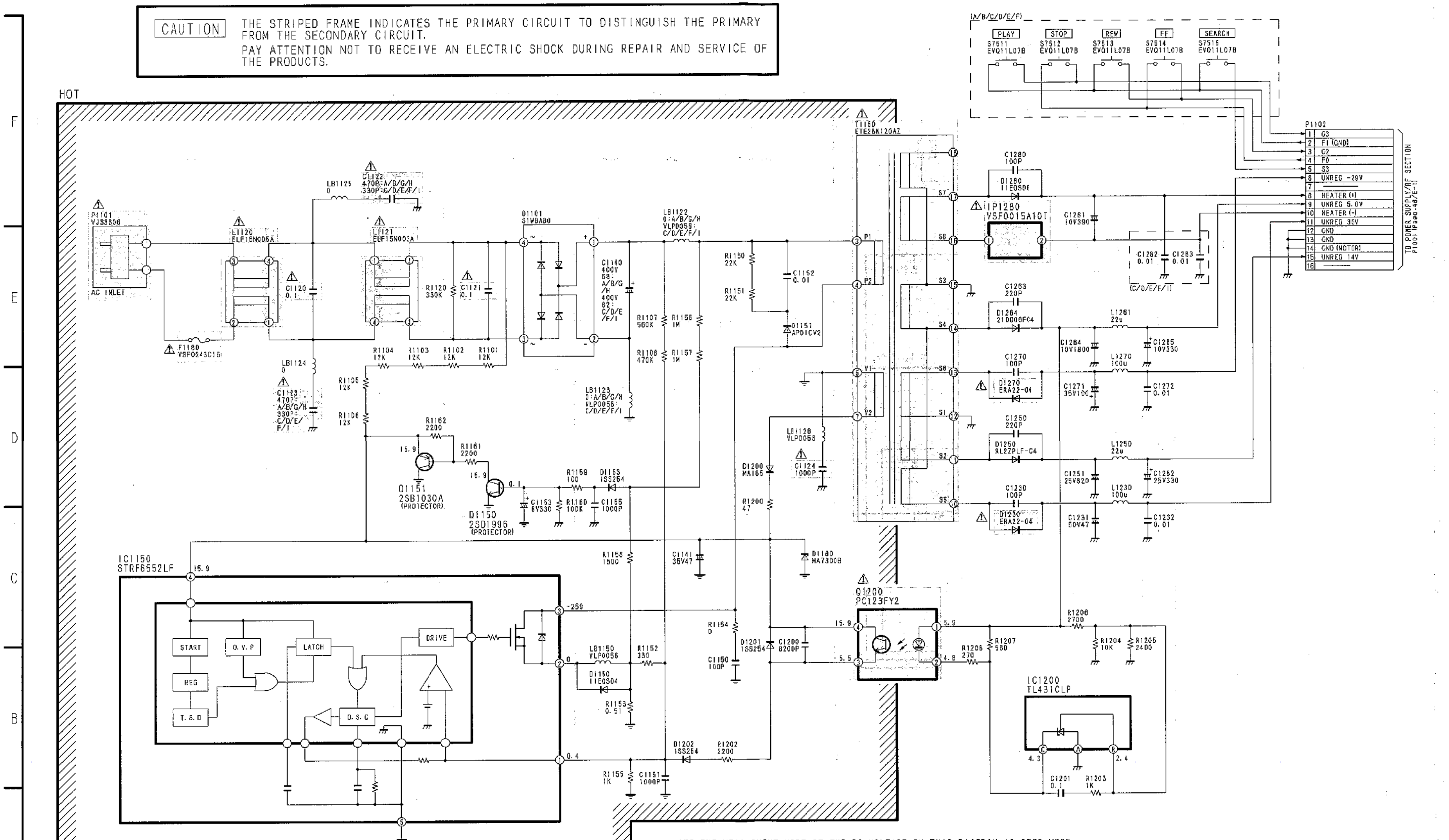

IC3001
YNR
HSS
1H DELAY
LPF
DOC
NOR
NC1
PICT
CLP1
NC2
DET
AGC
Y/C MIX
SUB CLAMP
ART SYNC
AMP
COLOUR KILLER SW
NLE NLDE
DTE
MAIN LPF
EE/FAMI
VV
FAMI
EE
T
F
R
Y/C
C
Y
VV/FAMI
SUB LPF
FM DEM
DOUB LIN
ENV DET
PEAKING
MAIN EMPH
DEV ADJ
W/D CLIP
FM MOD
AGC DET
RF AGC
L-TRAP &HPF
H-TRAP
VHS
S-VHS
Y/C MIX
REC-Y ADJ
LPF
BURST UP/DOWN
630KHz BPF
CACC
REC-C ADJ
FAMI/VV
BPF (FAMI) 3.58M (PAL-PB) 2.2M (NTSC-PB) 1.79M
BPF 3.58M/ 4.43M
BM-B (PB) 2.2/1.79M → 4.43/3.58M (FAMI) 2.2M → 4.43M
NTSC ALTERNATION
LPF
BM-A (REC) 4.43/3.58M (PB) 630K → 2.2/1.79M (FAMI) 3.58M → 2.2M
2HDL 1HDL
0HDL
0HDL
ACC
ACC DET
IIC BUS TRANSCEIVER
X2
2fsc
fsc
VXO
APC CK DET
VV LP
FAMI/VV SP
VCO
1/2
1/4
1/4
SUB BM
1/40
F. DET
PHASE ROTATION
AFC
SIDE LOCK
FH
X3001
X3002
56
50
46
40
43
42
52
54
38
37
67
26
18
17
14
15
27
24
12
31
30
32
25
23
PB Q ADJ.
QR3003
QR3004
+5V
LP Ⓗ
(G/H/I)
Q3005–Q3009
S-VHS DETECTOR
S-VHS PB Ⓗ
TO SYSTEM CONTROL
TW3001
P3001 7
P501 10
REC Y+C
P3001 5
P501 11
RF Y+C
IC501
AMP & H. AMP SW
PREAMP & H. SW
H. AMP SW
PREAMP & H. SW
LP L
LP COM
LP R
SP L
SP COM
SP R
P502 7
P502 6
P502 5
P502 2
P502 3
P502 4
P3001 8 / P501 9 HEAD SW
P3001 11 / P501 6 H. AMP SW
P3001 4 / P501 13 D. REC Ⓗ
P3001 5 / P501 12 TRACK ENV.
P3001 9 / P501 8 ENV. SEL
P3001 10 / P501 7 LP Ⓗ
TO/FROM SYSTEM CONTROL
HEAD AMP C. B. A.
FSC
TO SYSTEM CONTROL & AUDIO
ROTARY SW
FROM SYSTEM CONTROL

FAMI MODE: When setting the NTSC CONVERTER to ON on the OSD Screen Display, the signals from NTSC Signal Source (ex. NTSC GAME Machine) connected to the VCR can be appeared on the PAL TV. However when recording, it is not recorded correctly.

9 SCHEMATIC DIAGRAMS

9 1 POWER SCHEMATIC DIAGRAM

CAUTION THE STRIPED FRAME INDICATES THE PRIMARY CIRCUIT TO DISTINGUISH THE PRIMARY FROM THE SECONDARY CIRCUIT.
PAY ATTENTION NOT TO RECEIVE AN ELECTRIC SHOCK DURING REPAIR AND SERVICE OF THE PRODUCTS.


HOT
F
E
D
C
B
A
(A/B/C/D/E/F)
PLAY
S7511 EVQ11L07B
STOP
S7512 EVQ11L07B
REW
S7513 EVQ11L07B
FF
S7514 EVQ11L07B
SEARCH
S7515 EVQ11L07B
P1102
1 G3
2 F1 (GND)
3 C2
4 F0
5 S3
6 UNREG -29V
7
8 HEATER (+)
9 UNREG 5.6V
10 HEATER (-)
11 UNREG 36V
12 GND
13 GND
14 GND (MOTOR)
15 UNREG 14V
16
TO POWER SUPPLY/RF SECTION P1001 (Page-48/E-1)
P1101 VJS3306
AC INLET
F1180 VSF0243C16
L1120 ELF15N005A
C1120 0.1
LB1125 0
C1122 470P:A/B/G/H 330P:C/D/E/F/I
LB1124 0
C1123 470P: A/B/G/H 330P: C/D/E/F/I
L1121 ELF15N003A
C1121 0.1
R1120 330K
R1104 12K
R1103 12K
R1102 12K
R1101 12K
R1105 12K
R1106 12K
D1101 S1WBA80
C1140 400V 68: A/B/G/H 400V 82: C/D/E/F/I
LB1122 0:A/B/G/H VLP0058: C/D/E/F/I
LB1123 0:A/B/C/H VLP0058: C/D/E/F/I
R1107 560K
R1108 470K
R1156 1M
R1157 1M
R1150 22K
R1151 22K
C1152 0.01
D1151 AP01CV2
R1162 2200
R1161 2200
Q1151 2SB1030A (PROTECTOR)
Q1150 2SD1996 (PROTECTOR)
15.9
0.1
R1159 100
D1153 1SS254
C1153 6V330
R1160 100K
C1155 1000P
R1158 1500
C1141 35V47
D1180 MA7300B
IC1150 STRF6552LF
START
REG
T.S.D
O.V.P
LATCH
O.S.C
DRIVE
-259
0.4
LB1150 VLP0056
D1150 11EQS04
R1152 330
R1153 0.51
R1154 0
C1150 100P
D1201 1SS254
C1200 8200P
D1202 1SS254
R1202 2200
R1155 1K
C1151 1000P
LB1126 VLP0058
C1124 1000P
D1200 MA165
R1200 47
T1150 ETE28K120AZ
P1
P2
V1
V2
S7
S8
S3
S4
S1
S2
S5
C1280 100P
D1280 11EQS06
IP1280 VSF0015A10T
C1281 10V390
C1282 0.01
C1283 0.01
(C/D/E/F/I)
C1263 220P
D1264 21DQ06FC4
L1261 22u
C1284 10V1800
C1285 10V330
C1270 100P
D1270 ERA22-04
L1270 100u
C1271 35V100
C1272 0.01
C1250 220P
D1250 RL22PLF-C4
L1250 22u
C1251 25V820
C1252 25V330
C1230 100P
D1230 ERA22-04
L1230 100u
C1231 50V47
C1232 0.01
Q1200 PC123FY2
15.9
5.5
5.9
4.8
R1206 2700
R1207 560
R1205 270
R1204 10K
R1205 2400
IC1200 TL431CLP
4.3
2.4
C1201 0.1
R1203 1K
1
2
3
4
5
6
7
8
9
10

NOTE: THE MEASURMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

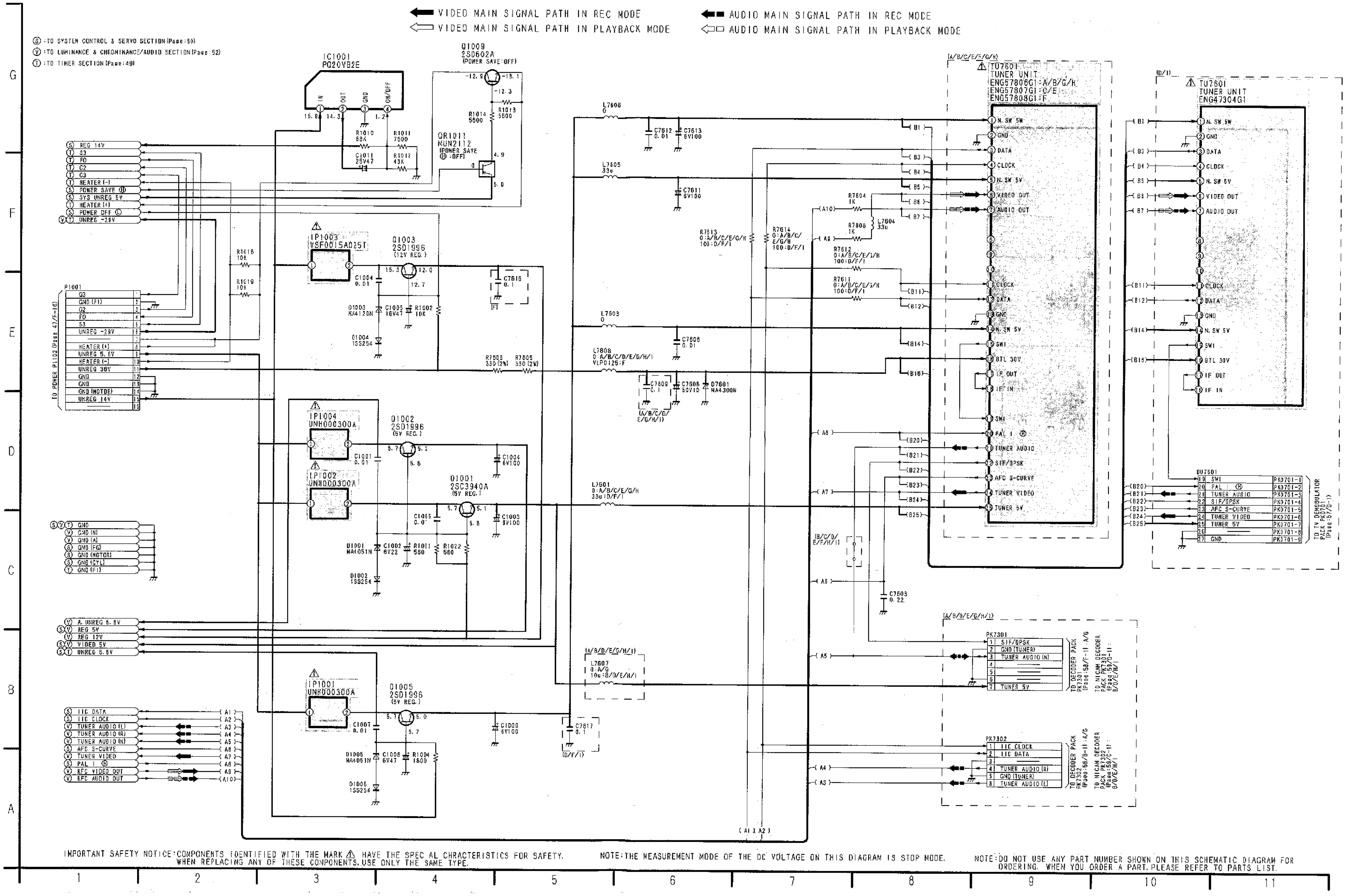
NOTE1: WHEN MEASURE THE VOLTAGE OR WAVEFORM ON THE POWER TRANSFORMER CIRCUIT, SET THE GND TERMINAL OF MEASURING POINT AS FOLLOWS.
PRIMARY SIDE..... ⏚
SECONDARY SIDE... ⏚

NOTE2: THE DC VOLTAGE INDICATED IN PRIMARY SIDE IS SHOWN THE VOLTAGE WHEN INPUT AC IS 240V.

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

9 2 POWER SUPPLY/RF SECTION IN MAIN SCHEMATIC DIAGRAM


VIDEO MAIN SIGNAL PATH IN REC MODE
VIDEO MAIN SIGNAL PATH IN PLAYBACK MODE
AUDIO MAIN SIGNAL PATH IN REC MODE
AUDIO MAIN SIGNAL PATH IN PLAYBACK MODE
Ⓢ:TO SYSTEM CONTROL & SERVO SECTION(Page:50)
Ⓥ:TO LUMINANCE & CHROMINANCE/AUDIO SECTION(Page:52)
Ⓣ:TO TIMER SECTION(Page:49)
IC1001
PQ20VB2E
IN
OUT
GND
ON/OFF
Q1009
2SD602A
(POWER SAVE OFF)
QR1011
MUN2112
(POWER SAVE Ⓗ:OFF)
R1010 68K
R1011 7500
R1012 43K
R1013 5600
R1014 5600
C1011 25V47
REG 14V
S3
FO
C2
C3
HEATER (-)
POWER SAVE Ⓗ
SYS UNREG 5V
HEATER (+)
POWER OFF Ⓛ
UNREG -28V
P1001
TO POWER P1102 (Page 47/F-10)
GND (FI)
UNREG -28V
HEATER (+)
UNREG 5.6V
HEATER (-)
UNREG 30V
GND
GND (MOTOR)
UNREG 14V
IP1003
VSF0015A025T
Q1003
2SD1996
(12V REG.)
IP1004
UNH000300A
Q1002
2SD1996
(5V REG.)
IP1002
UNH000300A
Q1001
2SC3940A
(5V REG.)
IP1001
UNH000300A
Q1005
2SD1996
(5V REG.)
D1003 MA4120N
D1004 1SS254
D1001 MA4051N
D1002 1SS254
D1005 MA4061N
D1006 1SS254
R1018 10K
R1019 10K
R7608 330 (2W)
R7605 330 (2W)
GND (N)
GND (A)
GND (FG)
GND (MOTOR)
GND (CYL)
GND (FI)
A. UNREG 5.6V
REG 5V
REG 12V
VIDEO 5V
UNREG 5.6V
IIC DATA
IIC CLOCK
TUNER AUDIO (L)
TUNER AUDIO (R)
TUNER AUDIO (N)
AFC S-CURVE
TUNER VIDEO
PAL I Ⓗ
RFC VIDEO OUT
RFC AUDIO OUT
L7606
L7605 33u
L7603
L7608
L7601
L7607
C7612 0.01
C7613 6V100
C7611 6V100
C7606 0.01
C7605 50V10
D7601 MA4300N
C7603 0.22
C7617 0.1
R7604 1K
R7606 1K
R7613
R7614
R7612
R7611
L7604 33u
TU7601
TUNER UNIT
ENG57806G1:A/B/G/H
ENG57807G1:C/E
ENG57808G1:F
N.SW 5V
GND
DATA
CLOCK
VIDEO OUT
AUDIO OUT
SWI
BTL 30V
IF OUT
IF IN
PAL I Ⓗ
TUNER AUDIO
SIF/QPSK
AFC S-CURVE
TUNER VIDEO
TUNER 5V
TU7601
TUNER UNIT
ENG47304G1
DU7601
TO TV DEMODULATOR PACK PK0701 (Page:57/D-1)
PK7301
TO DECODER PACK PK7301 (Page:58/F-1):A/G
TO NICAM DECODER PACK PK7301 (Page:59/D-1):B/D/E/H/I
PK7302
TO DECODER PACK PK7302 (Page:58/B-1):A/G
TO NICAM DECODER PACK PK7302 (Page:59/C-1):B/D/E/H/I
GND (TUNER)
TUNER AUDIO (N)
TUNER AUDIO (R)
TUNER AUDIO (L)
IIC CLOCK
IIC DATA
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11

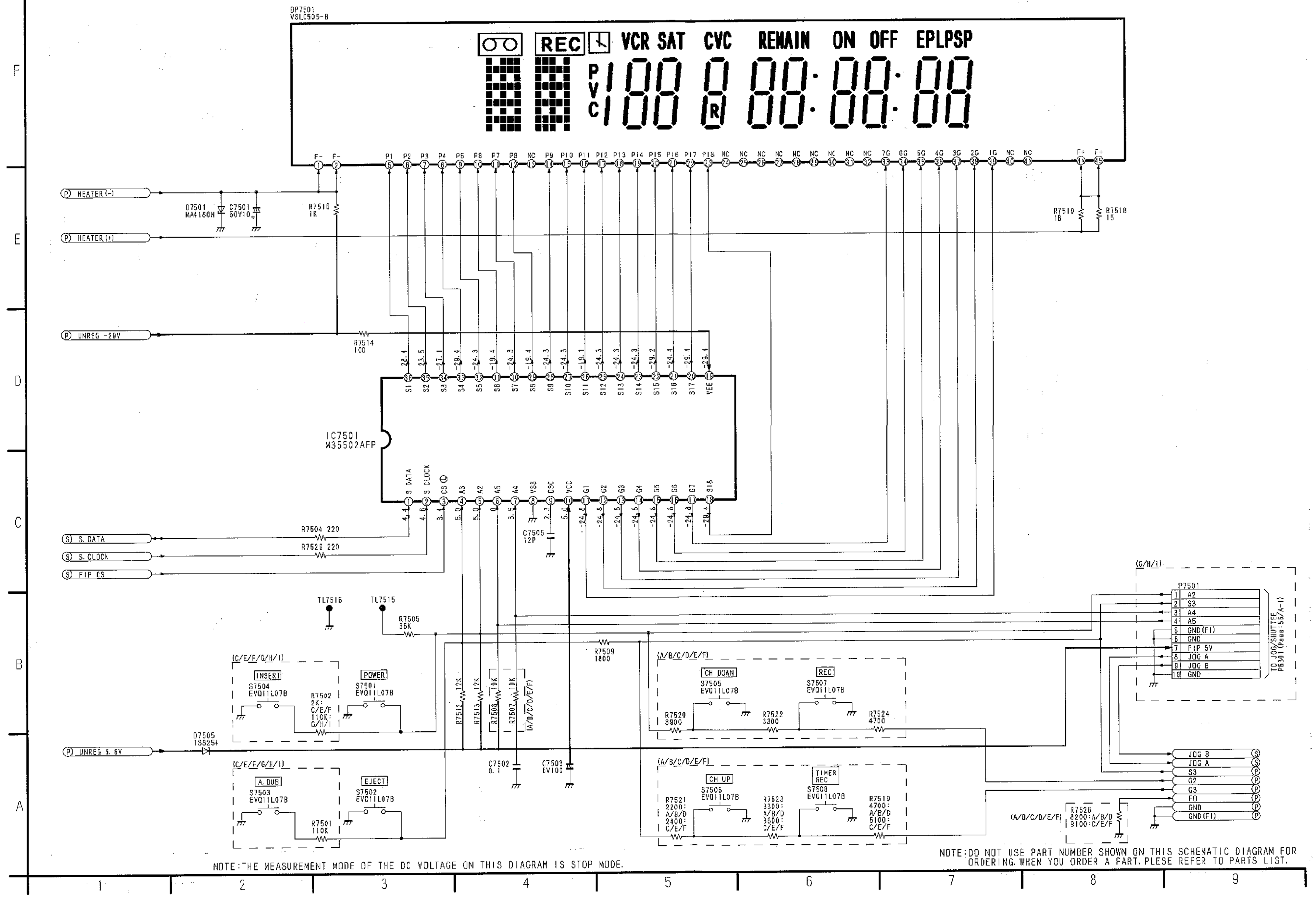
IMPORTANT SAFETY NOTICE:COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

NOTE:THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

NOTE:DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

9 3 TIMER SECTION IN MAIN SCHEMATIC DIAGRAM

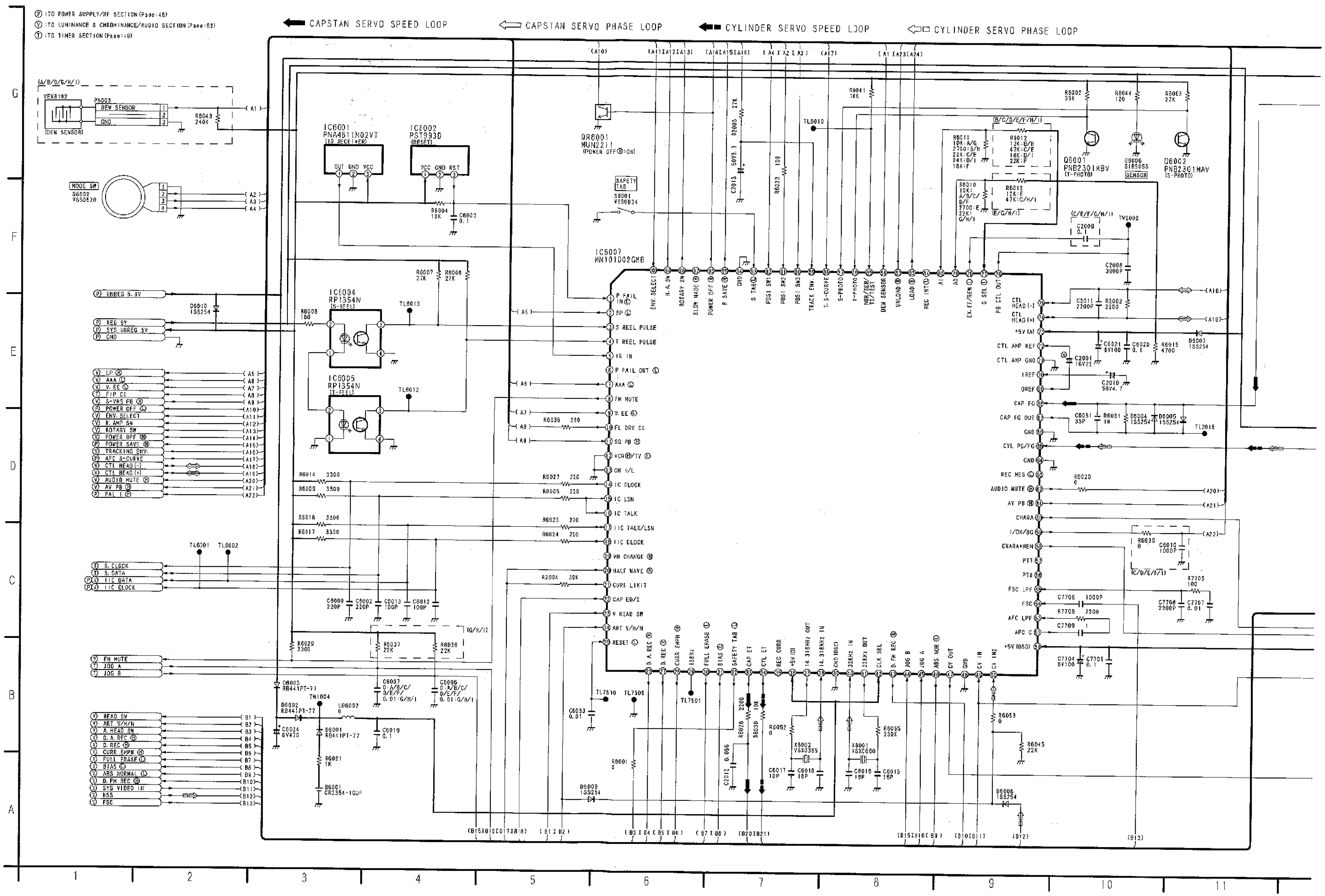
Ⓟ :TO POWER SUPPLY/RF SECTION(Page:48)
Ⓢ :TO SYSTEM CONTROL & SERVO SECTION(Page:50)

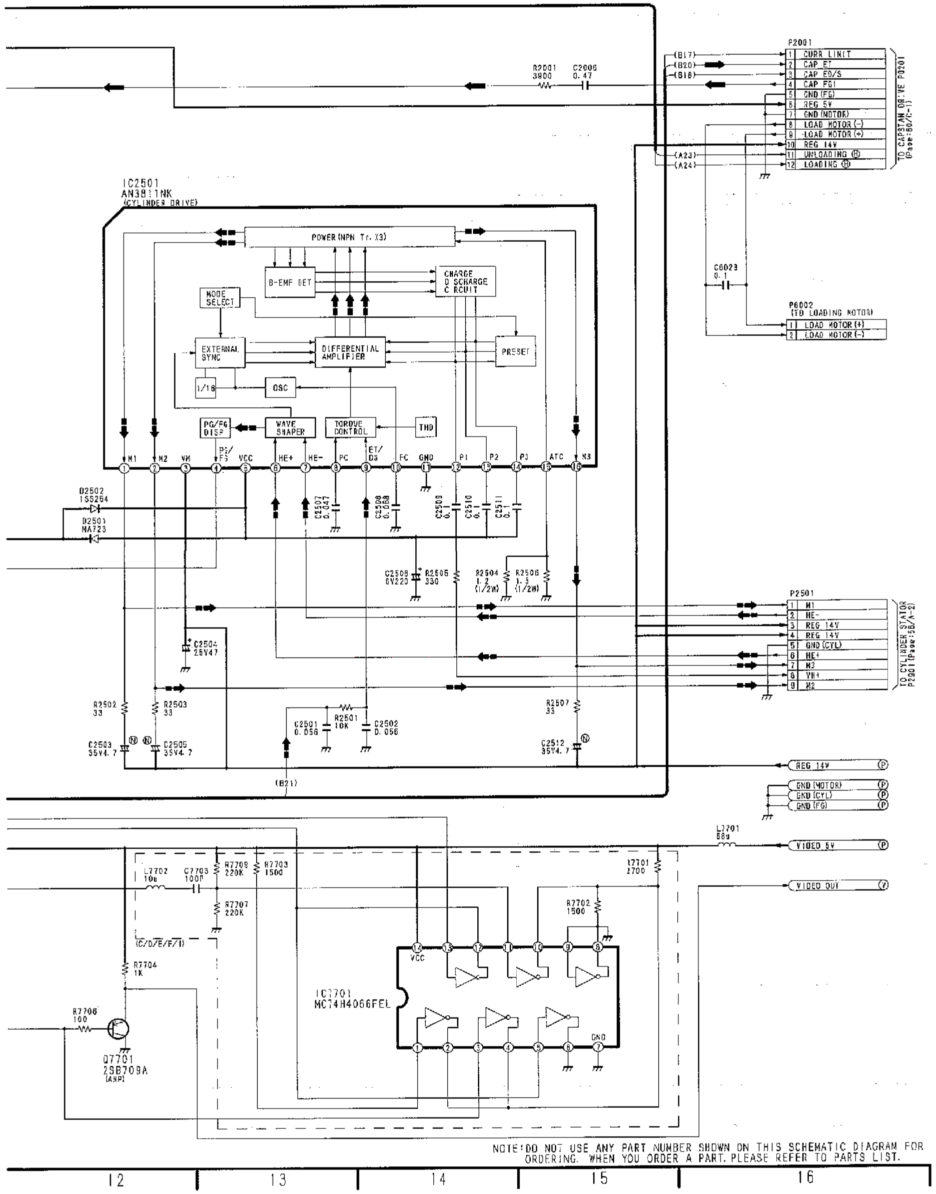

DP7501
VSL0505-B
REC
VCR SAT CVC REMAIN ON OFF EPLPSP
P
V
C
HEATER(-)
HEATER(+)
UNREG -28V
S.DATA
S.CLOCK
FIP CS
UNREG 5.8V
D7501
MA4180N
C7501
50V10
R7516
1K
R7510
15
R7518
15
R7514
100
IC7501
M35502AFP
S DATA
S CLOCK
CS
A3
A2
A5
A4
VSS
OSC
VCC
G1
G2
G3
G4
G5
G6
G7
S18
VEE
R7504 220
R7529 220
C7505
12P
TL7516
TL7515
R7505
36K
R7509
1800
R7512 12K
R7513 12K
R7508 10K
R7507 10K
(A/B/C/D/E/F)
C7502
0.1
C7503
EV100
D7505
1SS254
INSERT
S7504
EVQ11L07B
R7502
2K:
C/E/F
110K:
G/H/I
(C/E/F/G/H/I)
POWER
S7501
EVQ11L07B
A.DUB
S7503
EVQ11L07B
EJECT
S7502
EVQ11L07B
R7501
110K
CH DOWN
S7505
EVQ11L07B
REC
S7507
EVQ11L07B
R7520
3900
R7522
3300
R7524
4700
CH UP
S7506
EVQ11L07B
TIMER
REC
S7508
EVQ11L07B
R7521
2200:
A/B/D
2400:
C/E/F
R7523
3300:
A/B/D
3600:
C/E/F
R7519
4700:
A/B/D
5100:
C/E/F
R7526
8200:A/B/D
9100:C/E/F
(A/B/C/D/E/F)
(G/H/I)
P7501
A2
S3
A4
A5
GND(FI)
GND
FIP 5V
JOG A
JOG B
GND
TO JOG/SHUTTLE
P8301(Page:55/A-1)
JOG B
JOG A
S3
G2
G3
FO
GND
GND(FI)
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9

NOTE:THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

NOTE:DO NOT USE PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLESE REFER TO PARTS LIST.

9 4 SYSTEM CONTROL & SERVO SECTION IN MAIN SCHEMATIC DIAGRAM


Ⓟ :TO POWER SUPPLY/RF SECTION (Page:48)
Ⓥ :TO LUMINANCE & CHROMINANCE/AUDIO SECTION (Page:52)
Ⓣ :TO TIMER SECTION (Page:49)
CAPSTAN SERVO SPEED LOOP
CAPSTAN SERVO PHASE LOOP
CYLINDER SERVO SPEED LOOP
CYLINDER SERVO PHASE LOOP
(A/B/D/G/H/I)
VEK8192
(DEW SENSOR)
P5003
DEW SENSOR
GND
R6043 240K
MODE SW
S6002 VSS0520
IC6001 PNA4611M02VT (IR RECEIVER)
OUT GND VCC
IC6002 PST993D (RESET)
VCC GND RST
R6004 10K
C6003 0.1
QR6001 MUN2211 (POWER OFF Ⓑ:ON)
SAFETY TAB
S6001 VES0834
IC6007 MN101D02GMB
IC6004 RP1354N (S-REEL)
IC6005 RP1354N (T-REEL)
R6008 180
R6007 27K
R6006 27K
TL6013
TL6012
D6010 1SS254
Ⓟ UNREG 5.5V
Ⓟ REG 5V
Ⓟ SYS UNREG 5V
Ⓟ GND
Ⓥ LP Ⓗ
Ⓥ AAA Ⓛ
Ⓥ V. EE Ⓛ
Ⓣ FIP CS
Ⓥ S-VHS PB Ⓗ
Ⓟ POWER OFF Ⓛ
Ⓥ ENV. SELECT
Ⓥ H. AMP SW
Ⓥ ROTARY SW
Ⓣ POWER OFF Ⓗ
Ⓟ POWER SAVE Ⓗ
Ⓥ TRACKING ENV.
Ⓥ AFC S-CURVE
Ⓥ CTL HEAD (-)
Ⓥ CTL HEAD (+)
Ⓥ AUDIO MUTE Ⓗ
Ⓥ AV PB Ⓗ
Ⓟ PAL I Ⓒ
TL6001 TL6002
Ⓣ S. CLOCK
Ⓣ S. DATA
Ⓟ IIC DATA
Ⓟ IIC CLOCK
Ⓥ FM MUTE
Ⓣ JOG A
Ⓣ JOG B
Ⓥ HEAD SW
Ⓥ ART V/H/N
Ⓥ A. HEAD SW
Ⓥ D. A. REC Ⓗ
Ⓥ D. REC Ⓗ
Ⓥ CURR. EMPH Ⓗ
Ⓥ FULL ERASE Ⓛ
Ⓥ BIAS Ⓛ
Ⓥ ABS NORMAL Ⓛ
Ⓥ D. FM REC Ⓗ
Ⓥ SYS VIDEO IN
Ⓥ NSS
Ⓥ FSC
R6014 3300
R6009 3300
R6018 3300
R6017 3300
R6035 220
R6027 220
R6005 220
R6023 220
R6024 220
R2004 39K
C6009 220P
C6002 220P
C6013 100P
C6012 100P
R6029 3300
R6037 22K
R6036 22K
(G/H/I)
D6003 RB441PT-77
TW1004
D6002 RB441PT-77
LB6002 0
C6007 0:A/B/C/D/E/F/ 0.01:G/H/I
C6006 0:A/B/C/D/E/F/ 0.01:G/H/I
C6024 6V470
D6001 RB441PT-77
C6019 0.1
R6021 1K
B6001 CR2354-1GUF
P FAIL IN Ⓛ
SP Ⓛ
S REEL PULSE
T REEL PULSE
IR IN
P FAIL OUT Ⓛ
AAA Ⓛ
FM MUTE
V. EE Ⓛ
FL DRV CS
SQ PB Ⓗ
VCR Ⓗ/TV Ⓛ
CH 1/L
IC CLOCK
IC LSN
IC TALK
IIC TALK/LSN
IIC CLOCK
VH CHANGE Ⓗ
HALF WAVE Ⓗ
CURR LIMIT
CAP ED/S
V HEAD SW
ART V/H/N
RESET Ⓛ
ENV. SELECT
H. A. SW
ROTARY SW
SLOW MADE Ⓗ
POWER OFF Ⓗ
P SAVE Ⓗ
GND
S TAB Ⓛ
POSI SW1
POSI SW2
POSI SW3
TRACK ENV.
T. S-CURVE
S-PHOTO
T-PHOTO
NOR/SER/T2/TEST
DEW SENSOR
UNLOAD Ⓗ
LOAD Ⓗ
REC INT Ⓛ
A1
A0
EX. FF/REW Ⓛ
Q SEL Ⓛ
PB CTL OUT
CTL HEAD (-)
CTL HEAD (+)
+5V (A)
CTL AMP REF
CTL AMP GND
IREF
OREF
CAP FG
CAP FG OUT
GND
CYL PG/FG
GND
REC MES Ⓛ
AUDIO MUTE Ⓗ
AV PB Ⓗ
CHARA
I/DK/BG
CHARA+HEN
PT7
PT8
FSC LPF
FSC
AFC LPF
AFC C
+5V (OSD)
D. A. REC Ⓗ
D. REC Ⓗ
CURR EMPH Ⓗ
128Hz
FULL ERASE Ⓛ
BIAS Ⓛ
SAFETY TAB Ⓛ
CAP ET
CYL ET
REC CURR
+5V (D)
14.318MHz OUT
14.318MHz IN
GND (OSC)
32KHz IN
32KHz OUT
CLK SEL
D. FM REC Ⓗ
JOG B
JOG A
ABS NOR Ⓛ
CV OUT
GND
CV IN
CV IN2
R6041 10K
TL6010
R6003 27K
R2003 50V3.3
C2013
R6033 100
R6002 39K
R6044 120
R6063 27K
(B/C/D/E/F/H/I)
R6011 10K:A/G 2700:B/H 22K:C/E 24K:D/I 18K:F
R6012 12K:B/H 47K:C/E 18K:D/I 22K:F
R6010 10K: A/B/C/D/F 2700:E 22K: G/H/I
R6013 12K:E 47K:G/H/I
(E/G/H/I)
Q6001 PNB2301MBV (T-PHOTO)
Q6006 SIR505S SENSOR
Q6002 PNB2301MAV (S-PHOTO)
(C/E/F/G/H/I)
C2009 0.1
TW2002
C2008 3900P
C2011 2200P
R2002 2200
C6021 6V100
C6020 0.1
R6015 4700
D5007 1SS254
C2001 16V22
C2010 50V4.7
C6031 33P
R6031 1M
D5004 1SS254
D6005 1SS254
TL2015
R6020 0
R6030 0
C6010 1000P
(C/D/E/F/I)
R7705 100
C7706 1000P
R7708 2200
C7709 1
C7708 2200P
C7707 0.01
C7704 6V100
C7705 0.1
TL7510
TL7505
TL7501
C6033 0.01
R6001 0
D6009 1SS254
C2012 0.056
R6028 2200
R6030 10K
R6052 0
X6002 VSX0385
C6017 10P
C6018 18P
X6001 VSX0660
C6016 18P
C6015 15P
R6055 330K
R6053 0
R6045 22K
D6006 1SS254
(A10)
(A11)(A12)(A13)
(A14)(A15)(A16)
(A4)(A2)(A3)
(A17)
(A1)(A23)(A24)
(A18)
(A19)
(A20)
(A21)
(A22)
(B15)(B16)(B17)(B18)
(B1)(B2)
(B3)(B4)(B5)(B6)
(B7)(B8)
(B20)(B21)
(B15)(B16)(B9)
(B10)(B11)
(B12)
(B13)
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11


IC2501
AN3811NK
(CYLINDER DRIVE)
POWER (NPN Tr. X3)
B-EMF DET
CHARGE DISCHARGE CIRCUIT
MODE SELECT
EXTERNAL SYNC
DIFFERENTIAL AMPLIFIER
PRESET
1/16
OSC
PG/FG DISP
WAVE SHAPER
TORQUE CONTROL
THD
M1
M2
VM
PG/FG
VCC
HE+
HE-
PC
ET/DS
FC
GND
P1
P2
P3
ATC
M3
D2502
1SS254
D2501
MA723
C2507
0.047
C2508
0.068
C2509
0.1
C2510
0.1
C2511
0.1
C2506
6V220
R2505
330
R2504
1.2
(1/2W)
R2506
1.5
(1/2W)
C2504
25V47
R2502
33
R2503
33
C2503
35V4.7
C2505
35V4.7
C2501
0.056
R2501
10K
C2502
0.056
R2507
33
C2512
35V4.7
(B21)
R2001
3900
C2006
0.47
(B17)
(B20)
(B18)
(A23)
(A24)
P2001
1 CURR LIMIT
2 CAP ET
3 CAP EC/S
4 CAP FG1
5 GND (FG)
6 REG 5V
7 GND (MOTOR)
8 LOAD MOTOR (-)
9 LOAD MOTOR (+)
10 REG 14V
11 UNLOADING Ⓗ
12 LOADING Ⓗ
TO CAPSTAN DRIVE P0201 (Page:60/C-1)
C6023
0.1
P6002
(TO LOADING MOTOR)
1 LOAD MOTOR (+)
2 LOAD MOTOR (-)
P2501
1 M1
2 HE-
3 REG 14V
4 REG 14V
5 GND (CYL)
6 HE+
7 M3
8 VH+
9 M2
TO CYLINDER STATOR P2901 (Page:56/A-2)
REG 14V Ⓟ
GND (MOTOR) Ⓟ
GND (CYL) Ⓟ
GND (FG) Ⓟ
L7701
68µ
VIDEO 5V Ⓟ
VIDEO OUT Ⓥ
L7702
10µ
C7703
100P
R7709
220K
R7703
1500
R7707
220K
(C/D/E/F/I)
R7704
1K
R7706
100
Q7701
2SB709A
(AMP)
IC7701
MC74HC4066FEL
VCC
GND
R7701
2700
R7702
1500
12
13
14
15
16

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

SYSTEM CONTROL & SERVO ICs DC VOLTAGE CHART (SP MODE)

Ref. No.	IC2501															
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
STOP	15.1	15.1	15.3	1.0	5.0	1.1	1.1	0.5	2.5	1.4	0	3.8	3.8	3.8	0	15.1
PLAY	15.0	15.0	15.3	1.0	5.0	1.1	1.1	0.5	2.4	1.4	0	3.8	3.8	3.8	0	15.0
REC	15.0	15.0	15.3	1.0	5.0	1.1	1.1	0.5	2.4	1.4	0	3.8	3.8	3.8	0	15.0
F.F	14.7	14.7	15.1	1.0	5.0	1.1	1.1	0.5	2.4	1.4	0	3.8	3.8	3.8	0	14.7
REW	14.7	14.7	15.1	1.0	5.0	1.1	1.1	0.5	2.4	1.4	0	3.8	3.8	3.8	0	14.7

Ref. No.	IC6001			IC6002		
MODE	1	2	3	1	2	3
STOP	5.0	0	5.0	5.0	0	5.0
PLAY	5.0	0	5.0	5.0	0	5.0
REC	5.0	0	5.0	5.0	0	5.0
F.F	5.0	0	5.0	5.0	0	5.0
REW	5.0	0	5.0	5.0	0	5.0

Ref. No.	IC6004				IC6005			
MODE	1	2	3	4	1	2	3	4
STOP	1.1	2.3	5.2	0	0	1.1	3.9	0
PLAY	1.1	2.3	2.5	0	0	1.1	2.5	0
REC	1.1	2.3	2.5	0	0	1.1	2.5	0
F.F	1.1	2.3	2.5	0	0	1.1	2.5	0
REW	1.1	2.3	2.5	0	0	1.1	2.5	0

Ref. No.	IC6007																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	5.0	0	5.2	3.9	5.0	5.0	4.7	0.2	0	3.4	4.8	0	0	4.7	4.5	4.5	3.9	3.9	0	0
PLAY	5.0	0	2.5	2.5	5.0	5.0	4.7	0.2	5.0	3.1	4.8	0	0	4.6	4.4	4.4	3.9	3.8	0	0.4
REC	5.0	0	2.5	2.5	5.0	5.0	4.7	0.2	0	3.1	0	0	0	4.6	4.4	4.4	3.8	3.8	0	0.4
F.F	5.0	0	2.5	2.5	5.0	5.0	4.7	0.2	0	2.7	0	0	0	4.6	4.2	4.2	3.7	3.6	0	4.8
REW	5.0	0	2.5	2.5	5.0	5.0	4.7	0.2	0	2.7	0	0	0	4.6	4.2	4.2	3.7	3.6	0	4.8

Ref. No.	IC6007																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
STOP	0	0	2.5	0	5.0	0	0	0	2.5	5.0	5.0	0	0	2.5	0	5.0	2.6	2.6	0	2.6
PLAY	4.0	0	2.5	0	5.0	0	0	0	2.5	5.0	5.0	0	2.5	2.4	0	5.0	2.6	2.6	0	2.6
REC	4.0	0	2.5	0	5.0	4.9	5.0	0	2.5	0.2	0.2	0	2.5	2.4	0	5.0	2.6	2.6	0	2.6
F.F	4.9	C	2.5	0	5.0	0	0	0	2.5	5.0	5.0	0	5.0	2.4	0	5.0	2.6	2.6	0	2.6
REW	4.9	5.0	2.5	0	5.0	0	0	0	2.5	5.0	5.0	0	5.0	2.4	0	5.0	2.6	2.6	0	2.5

Ref. No.	IC6007																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
STOP	2.7	5.0	0	0.1	5.0	4.0	1.9	0	1.9	0.5	5.1	2.5	2.6	0.7	0.1	0	0	0	0	0
PLAY	2.7	5.0	0	5.0	5.0	4.0	1.9	0	1.9	0.5	5.1	2.5	2.6	1.1	0.1	0	0	0	0	0
REC	2.7	5.0	5.0	3.0	5.0	4.0	1.9	0	1.9	0.5	5.1	2.5	2.6	1.2	0.1	0	0	0	0	0
F.F	2.7	5.0	0	5.0	5.0	4.0	1.9	0	1.9	0.5	5.1	2.5	2.6	0.9	0.3	0	0	0	0	0
REW	2.7	5.0	0	5.0	5.0	4.0	1.9	0	1.9	0.5	5.1	2.5	2.6	0.4	0.2	0	0	0	0	0

Ref. No.																				
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
STOP	0	0.1	0	0	1.0	0	2.5	2.5	2.5	2.5	0	2.5	5.0	2.5	2.5	2.5	5.0	0	1.6	2.8
PLAY	5.0	0.1	0	0	1.0	0	2.5	2.5	2.5	2.5	0	2.5	5.0	2.5	2.5	2.5	5.0	0	1.6	2.8
REC	0	0.1	0	0	1.0	0	2.5	2.5	2.5	2.5	0	2.5	5.0	2.9	2.5	2.5	5.0	0	1.6	2.8
F.F	0	0.1	0	0	1.0	0	2.5	2.5	2.5	2.5	0	2.5	5.0	2.5	2.5	2.5	5.0	2.1	1.6	2.8
REW	0	0.1	0	0	1.0	0	2.5	2.5	2.5	2.5	0	2.5	5.0	2.5	2.5	2.5	5.0	2.1	1.6	2.8

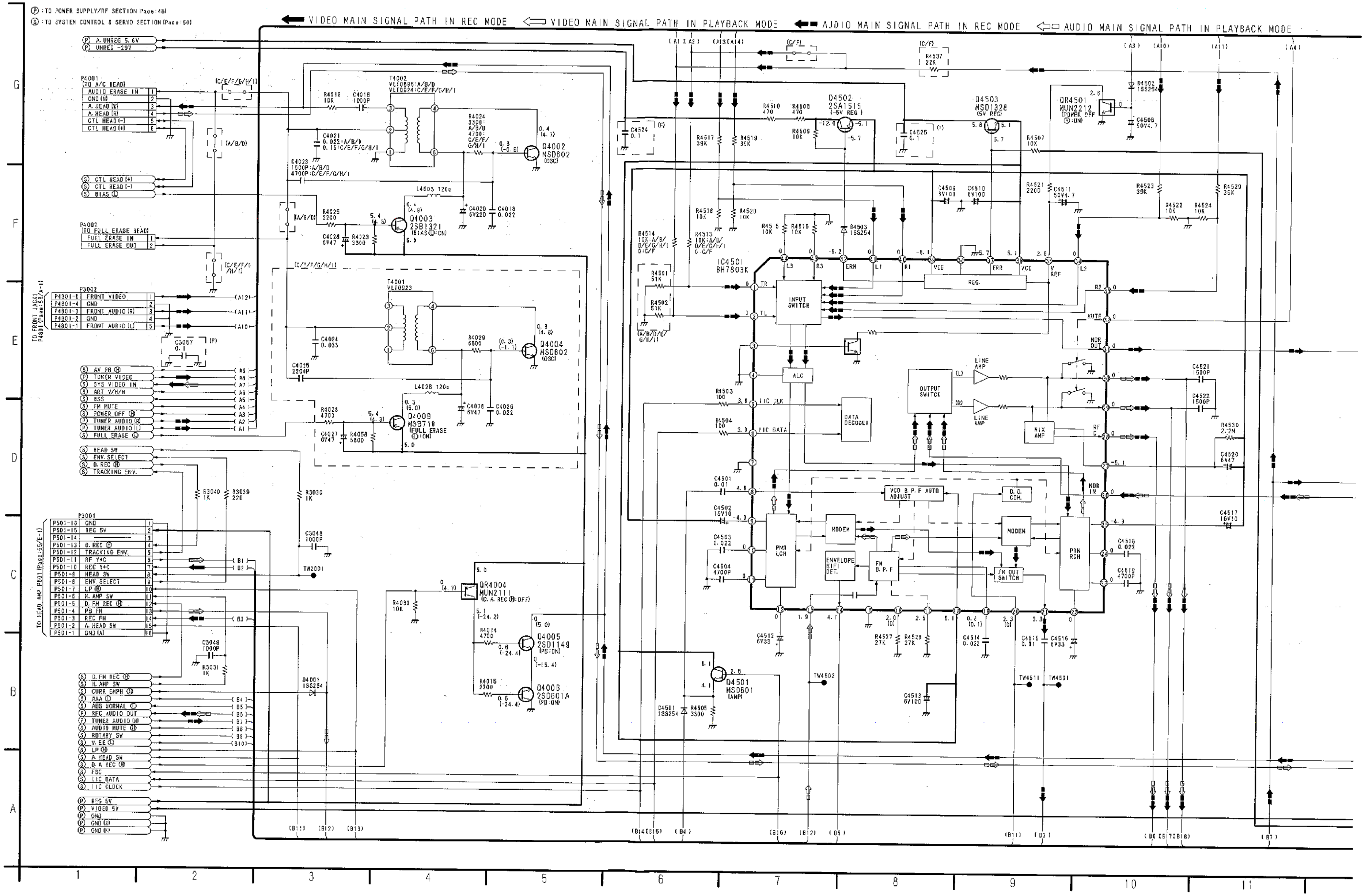
Ref. No.	IC6007																			
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
STOP	0	0	0	0	5.0	4.8	5.0	2.4	1.6	5.0	0	0	0	0	0	0	5.0	0	0	1.7
PLAY	0	0	0	0	5.0	4.8	5.0	2.4	4.0	5.0	0	0	0	0	0	0	5.0	2.5	0	5.0
REC	0	0	0	0	5.0	4.7	5.0	2.4	2.2	5.0	0	0	0	0	0	0	5.0	2.5	0	0
F.F	0	0	0	0	5.0	4.8	5.0	2.4	1.0	5.0	5.0	0	0	0	0	0	5.0	0	0	2.6
REW	0	0	0	0	5.0	4.8	5.0	2.4	3.3	5.0	5.0	0	0	0	0	0	5.0	0	0	3.7

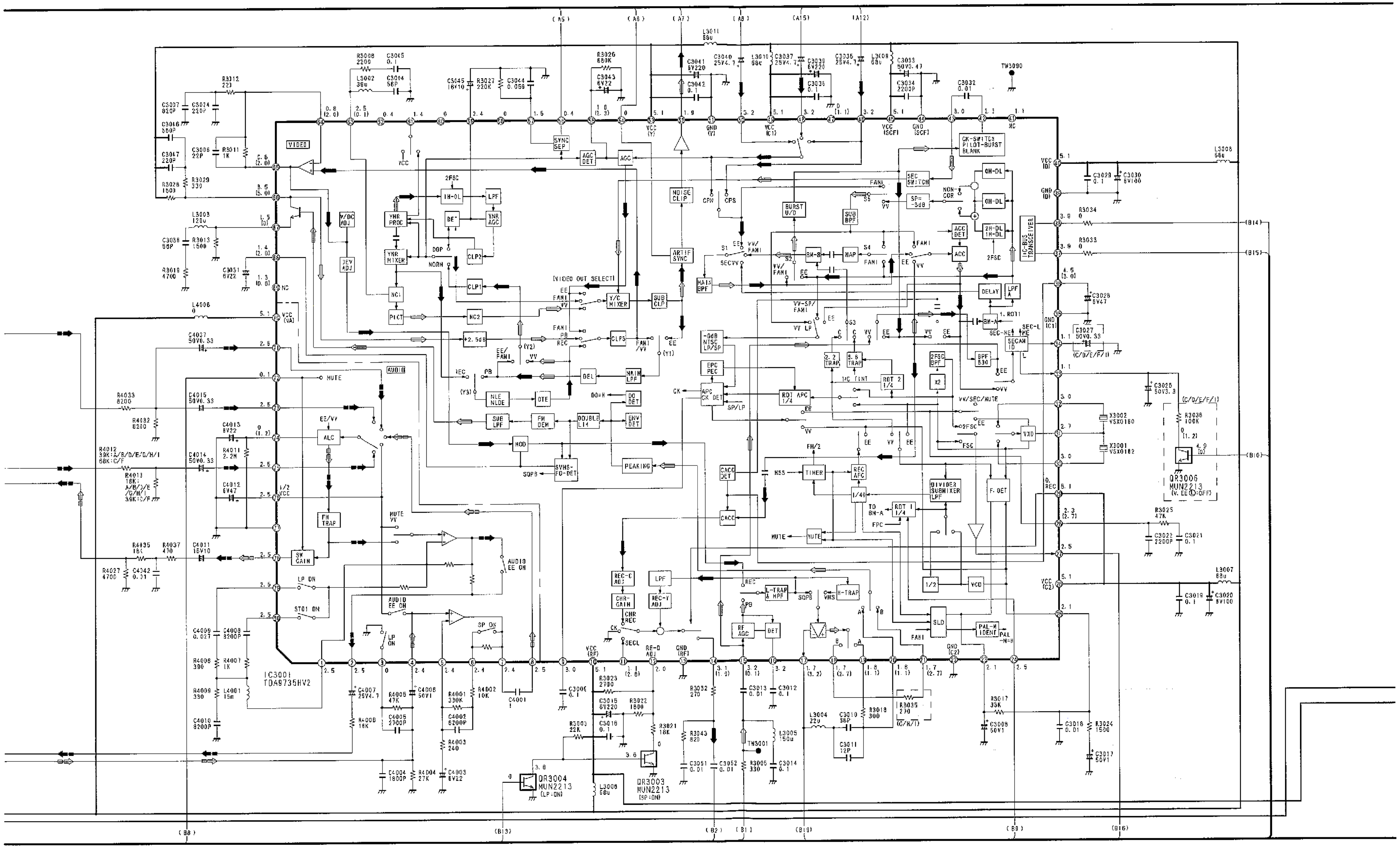
Ref. No.	IC7701													
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14
STOP	5.1	1.8	1.9	1.8	0	0	0	0	0	1.9	2.5	0	0	5.1
PLAY	5.1	1.8	1.8	1.8	0	0	0	0	0	1.8	2.5	0	0	5.1
REC	5.1	1.8	1.9	1.8	0	0	0	0	0	1.9	2.5	0	0	5.1
F.F	5.1	1.8	1.9	1.8	0	0	0	0	0	1.9	2.5	0	0	5.1
REW	5.1	1.8	1.9	1.8	0	0	0	0	0	1.9	2.5	0	0	5.1

SYSTEM CONTROL & SERVO TRs DC VOLTAGE CHART (SP MODE)

Ref. No.	Q6001			Q6002			Q7701			QR6001		
MODE	E	C		E	C		E	C	B	E	C	B
STOP	4.6	0		5.0	0		2.6	0	1.9	0	12.9	0
PLAY	4.8	0		5.0	0		2.6	0	1.9	0	12.8	0
REC	4.6	0		5.0	0		2.6	0	1.9	0	12.8	0
F.F	4.7	0		5.0	0		2.6	0	1.9	0	12.8	0
REW	4.7	0		5.0	0		2.6	0	1.9	0	12.0	0

9 5 LUMINANCE & CHROMINANCE/AUDIO SECTION IN MAIN SCHEMATIC DIAGRAM

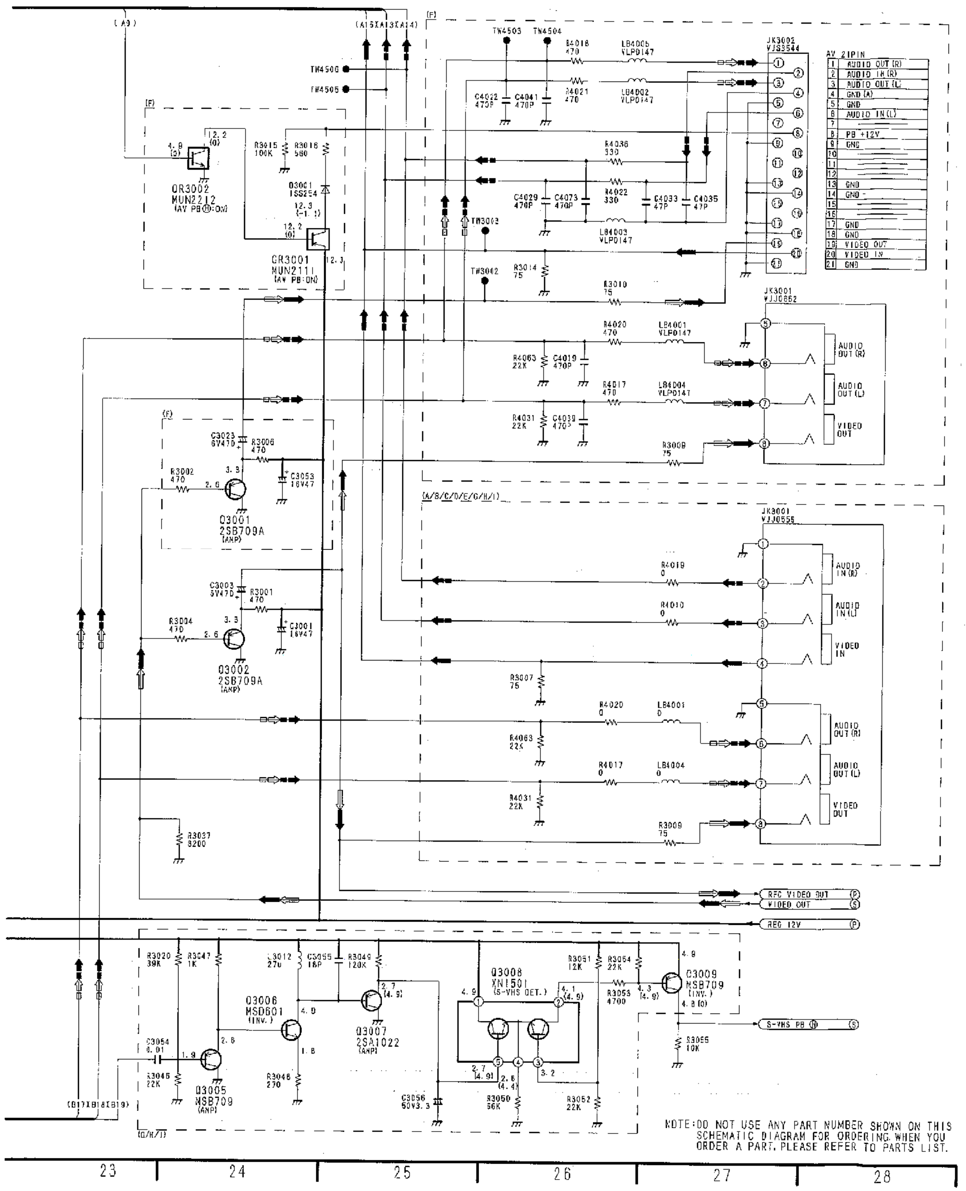

Ⓟ : TO POWER SUPPLY/RF SECTION (Page: 48)
Ⓢ : TO SYSTEM CONTROL & SERVO SECTION (Page: 50)
VIDEO MAIN SIGNAL PATH IN REC MODE
VIDEO MAIN SIGNAL PATH IN PLAYBACK MODE
AUDIO MAIN SIGNAL PATH IN REC MODE
AUDIO MAIN SIGNAL PATH IN PLAYBACK MODE
Ⓟ A. UNREG 5.6V
Ⓟ UNREG -29V
P4001 (TO A/C HEAD)
AUDIO ERASE IN 1
GND (N) 2
A. HEAD (W) 3
A. HEAD (R) 4
CTL HEAD (-) 5
CTL HEAD (+) 6
Ⓢ CTL HEAD (+)
Ⓢ CTL HEAD (-)
Ⓢ BIAS Ⓛ
P4002 (TO FULL ERASE HEAD)
FULL ERASE IN 1
FULL ERASE OUT 2
TO FRONT JACK) P4801 (Page: 56/A-1)
P3002
P4801-5 FRONT VIDEO 1
P4801-4 GND 2
P4801-3 FRONT AUDIO (R) 3
P4801-2 GND 4
P4801-1 FRONT AUDIO (L) 5
Ⓢ AV PB Ⓗ
Ⓟ TUNER VIDEO
Ⓢ SYS VIDEO IN
Ⓢ ART V/H/N
Ⓢ HSS
Ⓢ FM MUTE
Ⓢ POWER OFF Ⓗ
Ⓟ TUNER AUDIO (R)
Ⓟ TUNER AUDIO (L)
Ⓢ FULL ERASE Ⓛ
Ⓢ HEAD SW
Ⓢ ENV. SELECT
Ⓢ D. REC Ⓗ
Ⓢ TRACKING ENV.
TO HEAD AMP P501 (Page: 55/E-1)
P3001
P501-16 GND 1
P501-15 REG 5V 2
P501-14 3
P501-13 D. REC Ⓗ 4
P501-12 TRACKING ENV. 5
P501-11 RF Y+C 6
P501-10 REC Y+C 7
P501-9 HEAD SW 8
P501-8 ENV. SELECT 9
P501-7 LP Ⓗ 10
P501-6 H. AMP SW 11
P501-5 D. FM REC Ⓗ 12
P501-4 PB FM 13
P501-3 REC FM 14
P501-2 A. HEAD SW 15
P501-1 GND (A) 16
Ⓢ D. FM REC Ⓗ
Ⓢ H. AMP SW
Ⓢ CURR EMPH Ⓗ
Ⓢ AAA Ⓛ
Ⓢ ABS NORMAL Ⓛ
Ⓟ RFC AUDIO OUT
Ⓟ TUNER AUDIO (N)
Ⓢ AUDIO MUTE Ⓗ
Ⓢ ROTARY SW
Ⓢ V. EE Ⓛ
Ⓢ LP Ⓗ
Ⓢ A. HEAD SW
Ⓢ D. A REC Ⓗ
Ⓢ FSC
Ⓢ IIC DATA
Ⓢ IIC CLOCK
Ⓟ REG 5V
Ⓟ VIDEO 5V
Ⓟ GND
Ⓟ GND (A)
Ⓟ GND (N)
T4002
T4001 VLT0923
Q4002 MSD602 (OSC)
Q4003 2SB1321 (BIAS Ⓛ:ON)
Q4004 MSD602 (OSC)
Q4009 MSB719 (FULL ERASE Ⓛ:ON)
QR4004 MUN2111 (D. A. REC Ⓗ:OFF)
Q4005 2SD1149 (PB:ON)
Q4006 2SD601A (PB:ON)
D4001 1SS254
TW2001
IC4501 BH7803K
INPUT SWITCH
ALC
DATA DECODER
OUTPUT SWITCH
LINE AMP
MIX AMP
REG.
VCO B.P.F AUTO ADJUST
D.O. COM.
MODEM
PNR LCH
PNR RCH
ENVELOPE (HIFI) DET.
FM B.P.F
FM OUT SWITCH
IIC CLK
IIC DATA
MUTE
NOR OUT
NOR IN
Q4502 2SA1515 (-5V REG)
Q4503 MSD1328 (5V REG)
QR4501 MUN2212 (POWER OFF Ⓗ:ON)
Q4501 MSD601 (AMP)
D4501 1SS254
D4502 1SS254
D4503 1SS254
TW4501
TW4502
TW4511
A B C D E F G
1 2 3 4 5 6 7 8 9 10 11


IC3001
TDA9735HV2
QR3004
MUN2213
(LP:ON)
QR3003
MUN2213
(SP:ON)
QR3006
MUN2213
(V. EE:OFF)
X3001
VSX0182
X3002
VSX0160
TW3090
TH5001
VIDEO
AUDIO
I²C-BUS TRANSCEIVER
CK-SWITCH PILOT-BURST BLANK
SEC SWITCH
BURST U/D
SUB BPF
NOISE CLIP
ARTIF SYNC
MAIN BPF
SYNC SEP
AGC DET
ACC
YNR PROC
YNR MIXER
YNR AGC
1H-DL
LPF
CLP
CLP2
NC1
NC2
PICT
Y/C MIXER
SUB CLP
CLPS
MAIN LPF
DEL
DO DET
ENV DET
DOUBLE LIM
FM DEM
SUB LPF
NLE NLDE
DTE
MOD
SVHS-FD-DET
PEAKING
ALC
FM TRAP
SW GAIN
REC-C ADJ
CHR GAIN
LPF
REC-Y ADJ
L-TRAP & HPF
H-TRAP
RF AGC
DET
SLD
PAL-H IDENT
VCO
1/2
F. DET
DIVIDER SUBMIXER LPF
ROT 1 1/4
1/40
REC AFC
TIMER
CACC DET
CACC
MUTE
EPC PEC
-6dB NTSC LP/SP
APC CK DET
ROT APC 1/4
ROT 2 1/4
2.2 TRAP
3.5 TRAP
2FSC BPF
X2
BPF 530
SECAM ID
DELAY
LPF A
BM-A
ACC DET
2H-DL 1H-DL
0H-DL
VXO
(A5)
(A6)
(A7)
(A8)
(A15)
(A12)
(B14)
(B15)
(B10)
(B8)
(B13)
(B2)
(B1)
(B19)
(B9)
(B16)

NOTE:THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS( )ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL. (SP MODE)

THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL. (SP MODE)

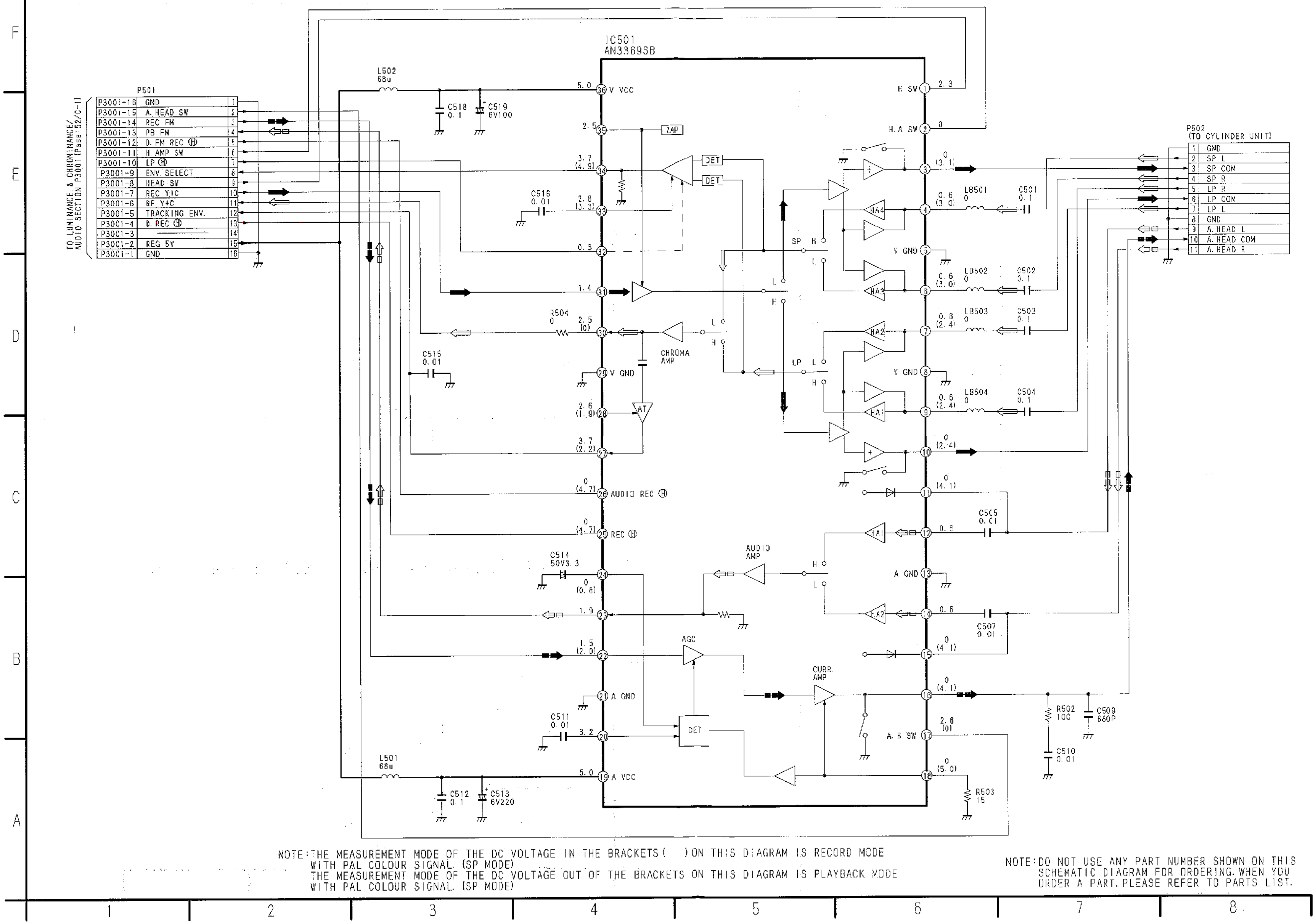
12
13
14
15
16
17
18
19
20
21
22


(A9)
(A15)(A13)(A14)
TW4506
TW4505
(F)
4.8 (0)
12.2 (0)
QR3002
MUN2212
(AV PB Ⓗ:ON)
R3015 100K
R3016 560
D3001 1SS254
12.3 (-1.1)
12.2 (0)
QR3001
MUN2111
(AV PB:ON)
12.3
TW4503
TW4504
R4018 470
LB4005 VLP0147
R4021 470
LB4002 VLP0147
C4022 470P
C4041 470P
R4036 330
R4022 330
C4029 470P
C4073 470P
C4033 47P
C4035 47P
LB4003 VLP0147
TW3003
TW3002
R3014 75
R3010 75
JK3002
VJS3544
AV 21PIN
1 AUDIO OUT (R)
2 AUDIO IN (R)
3 AUDIO OUT (L)
4 GND (A)
5 GND
6 AUDIO IN (L)
7
8 PB +12V
9 GND
10
11
12
13 GND
14 GND
15
16
17 GND
18 GND
19 VIDEO OUT
20 VIDEO IN
21 GND
JK3001
VJJ0652
R4020 470
LB4001 VLP0147
R4063 22K
C4019 470P
R4017 470
LB4004 VLP0147
R4031 22K
C4039 470P
R3008 75
AUDIO OUT (R)
AUDIO OUT (L)
VIDEO OUT
C3023 6V470
R3006 470
R3002 470
3.3
2.6
C3053 16V47
Q3001
2SB709A
(AMP)
C3003 6V470
R3001 470
R3004 470
C3001 16V47
Q3002
2SB709A
(AMP)
R3037 8200
(A/B/C/D/E/G/H/I)
JK3001
VJJ0559
R4019 0
R4010 0
R3007 75
R4020 0
LB4001 0
R4063 22K
R4017 0
LB4004 0
R4031 22K
R3009 75
AUDIO IN (R)
AUDIO IN (L)
VIDEO IN
AUDIO OUT (R)
AUDIO OUT (L)
VIDEO OUT
RFC VIDEO OUT Ⓟ
VIDEO OUT Ⓢ
REG 12V Ⓟ
(B17)(B18)(B19)
R3020 39K
R3047 1K
C3054 0.01
R3046 22K
1.9
2.6
Q3005
MSB709
(AMP)
L3012 27u
C3055 18P
R3049 120K
Q3006
MSD601
(INV.)
4.9
1.8
R3048 270
2.7 (4.9)
Q3007
2SA1022
(AMP)
C3056 50V3.3
Q3008
XN1501
(S-VHS DET.)
4.9
4.1 (4.9)
2.7 (4.9)
2.6 (4.4)
3.2
R3050 56K
R3051 12K
R3054 22K
R3053 4700
4.3 (4.9)
R3052 22K
4.9
Q3009
MSB709
(INV.)
4.8 (0)
R3055 10K
S-VHS PB Ⓗ Ⓢ
(G/H/I)
23
24
25
26
27
28

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

9 6 HEAD AMP SCHEMATIC DIAGRAM

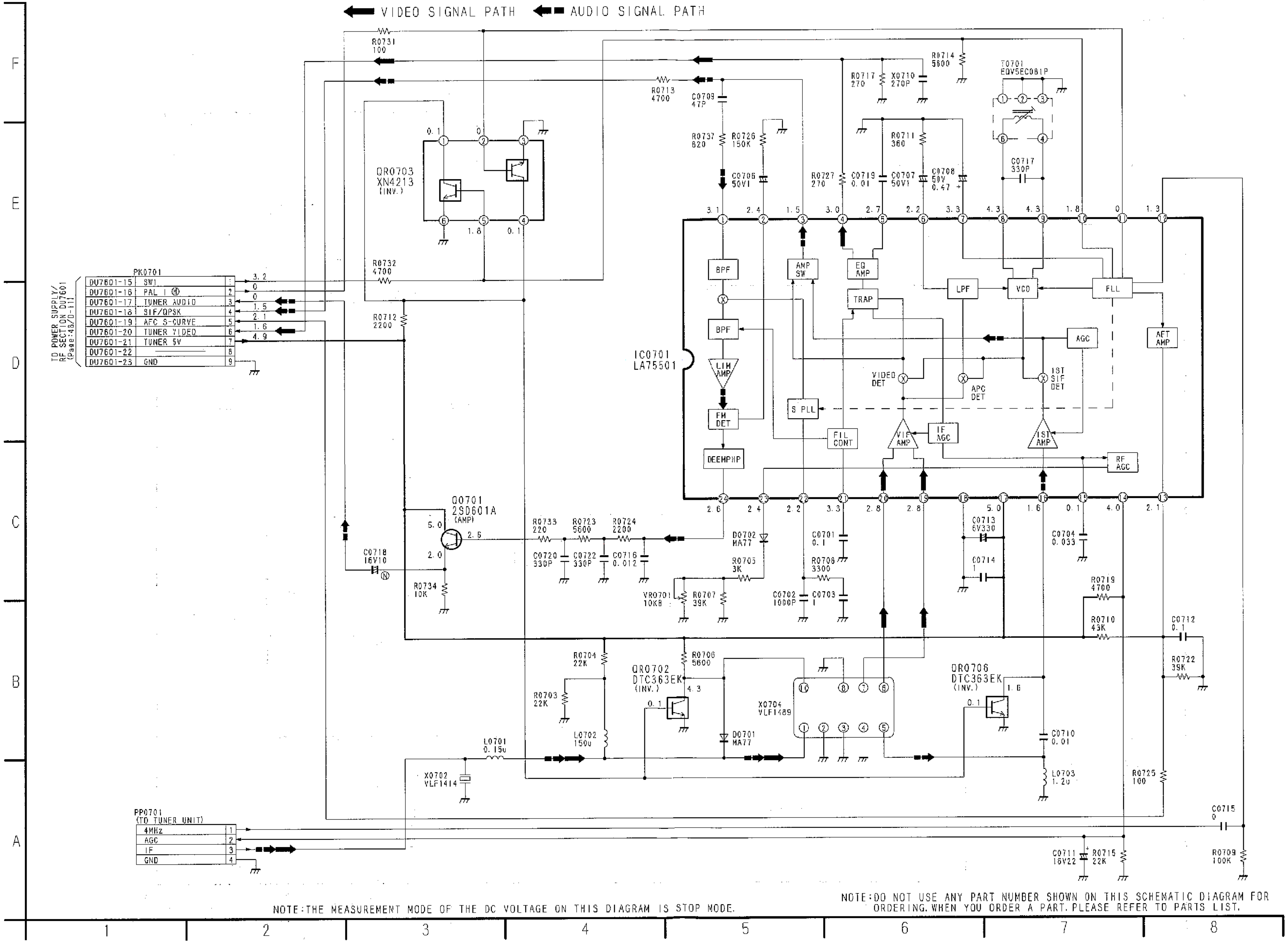
← VIDEO MAIN SIGNAL PATH IN REC MODE
⇦ VIDEO MAIN SIGNAL PATH IN PLAYBACK MODE
← Hi-Fi AUDIO MAIN SIGNAL PATH IN REC MODE
⇦ Hi-Fi AUDIO MAIN SIGNAL PATH IN PLAYBACK MODE


IC501
AN3369SB
P501
P3001-16 GND 1
P3001-15 A. HEAD SW 2
P3001-14 REC FM 3
P3001-13 PB FM 4
P3001-12 D. FM REC Ⓗ 5
P3001-11 H. AMP SW 6
P3001-10 LP Ⓗ 7
P3001-9 ENV. SELECT 8
P3001-8 HEAD SW 9
P3001-7 REC Y/C 10
P3001-6 RF Y+C 11
P3001-5 TRACKING ENV. 12
P3001-4 D. REC Ⓛ 13
P3001-3 14
P3001-2 REG 5V 15
P3001-1 GND 16
TO LUMINANCE & CHROMINANCE/ AUDIO SECTION P3001 (Page 52/C-1)
P502 (TO CYLINDER UNIT)
1 GND
2 SP L
3 SP COM
4 SP R
5 LP R
6 LP COM
7 LP L
8 GND
9 A. HEAD L
10 A. HEAD COM
11 A. HEAD R
L502 68u
L501 68u
C518 0.1
C519 6V100
C516 0.01
C515 0.01
C514 50V3.3
C511 0.01
C512 0.1
C513 6V220
R504 0
C501 0.1
C502 0.1
C503 0.1
C504 0.1
C505 0.01
C507 0.01
C509 560P
C510 0.01
R502 100
R503 15
LB501 0
LB502 0
LB503 0
LB504 0
V VCC
V GND
A GND
A VCC
H SW
H. A SW
A. H SW
AUDIO REC Ⓗ
REC Ⓗ
74P
DET
CHROMA AMP
AT
AUDIO AMP
AGC
CURR. AMP
HA1
HA2
HA3
HA4
A1
A2
SP
LP
H
L
5.0
2.5
3.7 (4.9)
2.8 (3.3)
0.3
1.4
2.5 (0)
2.6 (1.9)
3.7 (2.2)
0 (4.7)
0 (0.8)
1.9
1.5 (2.0)
3.2
2.3
0 (3.1)
0.6 (3.0)
0.6 (2.4)
0 (2.4)
0 (4.1)
0.6
2.6 (0)
0 (5.0)
F
E
D
C
B
A
1
2
3
4
5
6
7
8

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS( ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL. (SP MODE)
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL. (SP MODE)

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

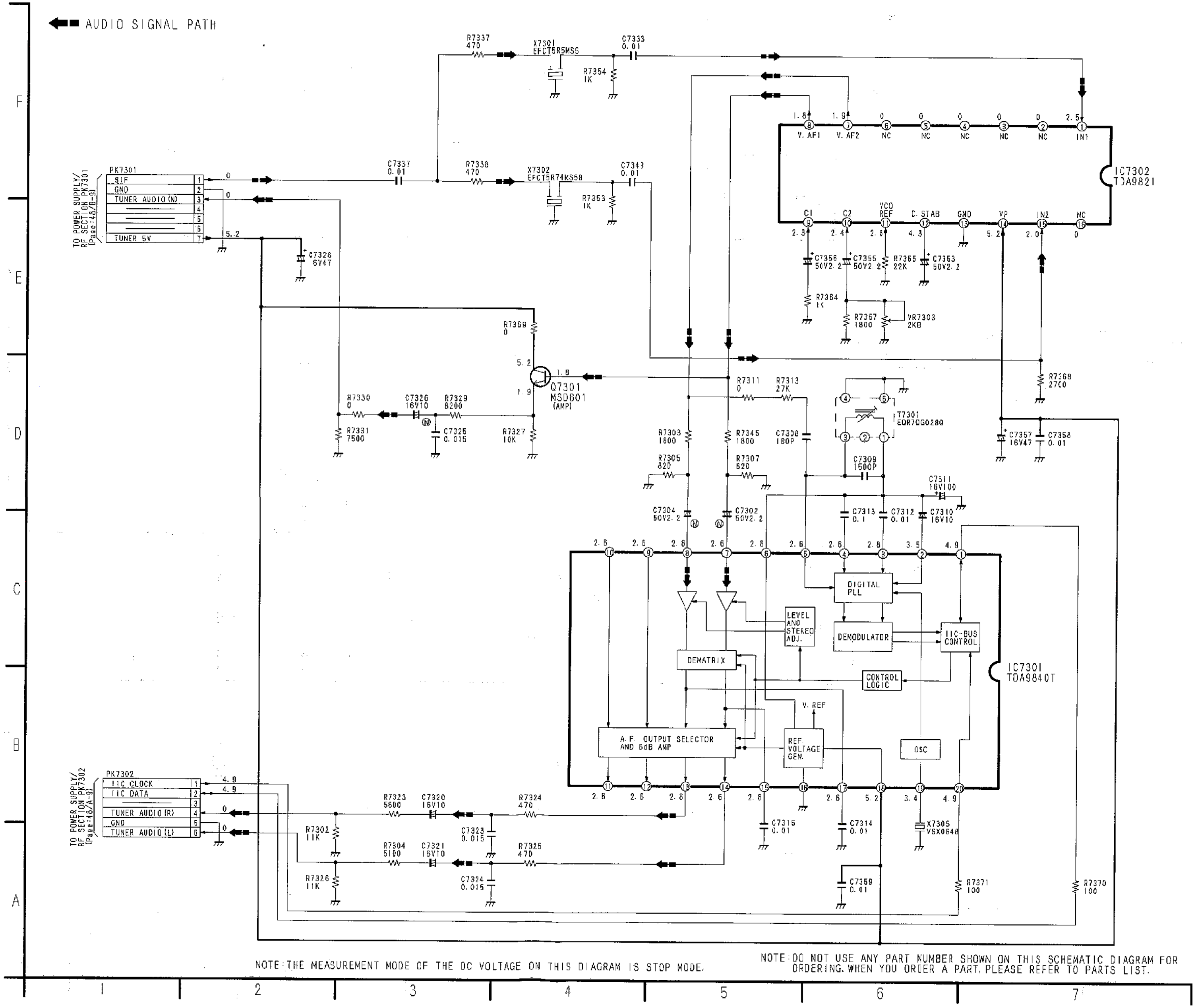
9 10 TV DEMODULATOR PACK SCHEMATIC DIAGRAM (NV-HD630BD, HD675BD)


VIDEO SIGNAL PATH
AUDIO SIGNAL PATH
F
E
D
C
B
A
1
2
3
4
5
6
7
8
R0731 100
R0713 4700
C0709 47P
R0737 820
R0726 150K
C0706 50V1
R0727 270
C0719 0.01
C0707 50V1
C0708 50V 0.47
R0711 360
R0717 270
X0710 270P
R0714 5600
T0701 EQV5EC081P
C0717 330P
QR0703 XN4213 (INV.)
R0732 4700
R0712 2200
PK0701
DU7601-15 SW1 1
DU7601-16 PAL I ⊕ 2
DU7601-17 TUNER AUDIO 3
DU7601-18 SIF/QPSK 4
DU7601-19 AFC S-CURVE 5
DU7601-20 TUNER VIDEO 6
DU7601-21 TUNER 5V 7
DU7601-22 8
DU7601-23 GND 9
TO POWER SUPPLY/ RF SECTION DU7601 (Page:48/D-11)
IC0701 LA75501
BPF
AMP SW
EQ AMP
TRAP
LPF
VCO
FLL
AFT AMP
AGC
LIM AMP
FM DET
DEEMPHP
S PLL
FIL CONT
VIDEO DET
APC DET
1ST SIF DET
VIF AMP
IF AGC
1ST AMP
RF AGC
Q0701 2SD601A (AMP)
C0718 16V10
R0734 10K
R0733 220
R0723 5600
R0724 2200
C0720 330P
C0722 330P
C0716 0.012
D0702 MA77
R0705 3K
VR0701 10KB
R0707 39K
C0701 0.1
R0708 3300
C0702 1000P
C0703 1
C0713 6V330
C0714 1
C0704 0.033
R0719 4700
R0710 43K
C0712 0.1
R0722 39K
R0704 22K
R0703 22K
QR0702 DTC363EK (INV.)
R0706 5600
X0704 VLF1489
D0701 MA77
QR0706 DTC363EK (INV.)
C0710 0.01
L0703 1.2u
R0725 100
L0701 0.15u
L0702 150u
X0702 VLF1414
PP0701 (TO TUNER UNIT)
4MHz 1
AGC 2
IF 3
GND 4
C0715 0
C0711 16V22
R0715 22K
R0709 100K

NOTE:THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

NOTE:DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING.WHEN YOU ORDER A PART,PLEASE REFER TO PARTS LIST.

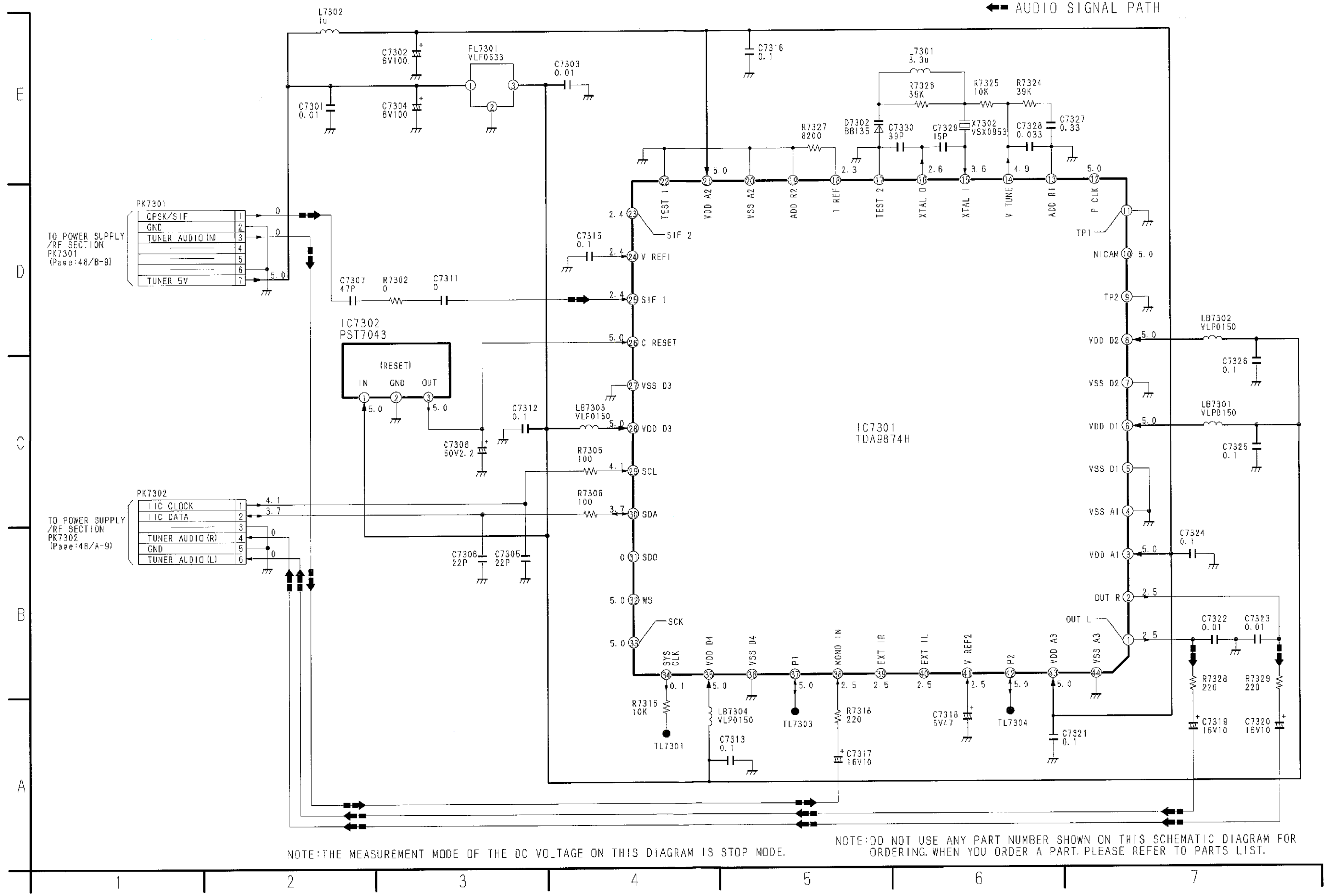
9.11. DECODER PACK SCHEMATIC DIAGRAM (NV-HD630A, HD675A)


AUDIO SIGNAL PATH
TO POWER SUPPLY/ RF SECTION PK7301 (Page:48/B-9)
PK7301
SIF
GND
TUNER AUDIO (N)
TUNER 5V
TO POWER SUPPLY/ RF SECTION PK7302 (Page:48/A-9)
PK7302
IIC CLOCK
IIC DATA
TUNER AUDIO (R)
GND
TUNER AUDIO (L)
R7337 470
X7301 EFCT5R5MS5
C7333 0.01
R7354 1K
C7337 0.01
R7338 470
X7302 EFCT5R74MS58
C7343 0.01
R7353 1K
C7328 6V47
IC7302 TDA9821
V.AF1
V.AF2
NC
IN1
C1
C2
VCO REF
C.STAB
GND
VP
IN2
C7356 50V2.2
C7355 50V2.2
R7365 22K
C7353 50V2.2
R7364 1K
R7367 1800
VR7303 2KB
R7368 2700
C7357 16V47
C7358 0.01
R7369 0
Q7301 MSD601 (AMP)
R7330 0
C7326 16V10
R7329 6200
R7331 7500
C7325 0.015
R7327 10K
R7311 0
R7313 27K
T7301 EOR7QG028Q
R7303 1800
R7345 1800
C7308 180P
C7309 1500P
R7305 820
R7307 820
C7311 16V100
C7304 50V2.2
C7302 50V2.2
C7313 0.1
C7312 0.01
C7310 16V10
IC7301 TDA9840T
DIGITAL PLL
LEVEL AND STEREO ADJ.
DEMODULATOR
IIC-BUS CONTROL
DEMATRIX
CONTROL LOGIC
V.REF
A.F. OUTPUT SELECTOR AND 6dB AMP
REF. VOLTAGE GEN.
OSC
C7316 0.01
C7314 0.01
X7305 VSX0648
C7359 0.01
R7371 100
R7370 100
R7323 5600
C7320 16V10
R7324 470
R7302 11K
C7323 0.015
R7304 5100
C7321 16V10
R7325 470
R7326 11K
C7324 0.015
F
E
D
C
B
A
1
2
3
4
5
6
7

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

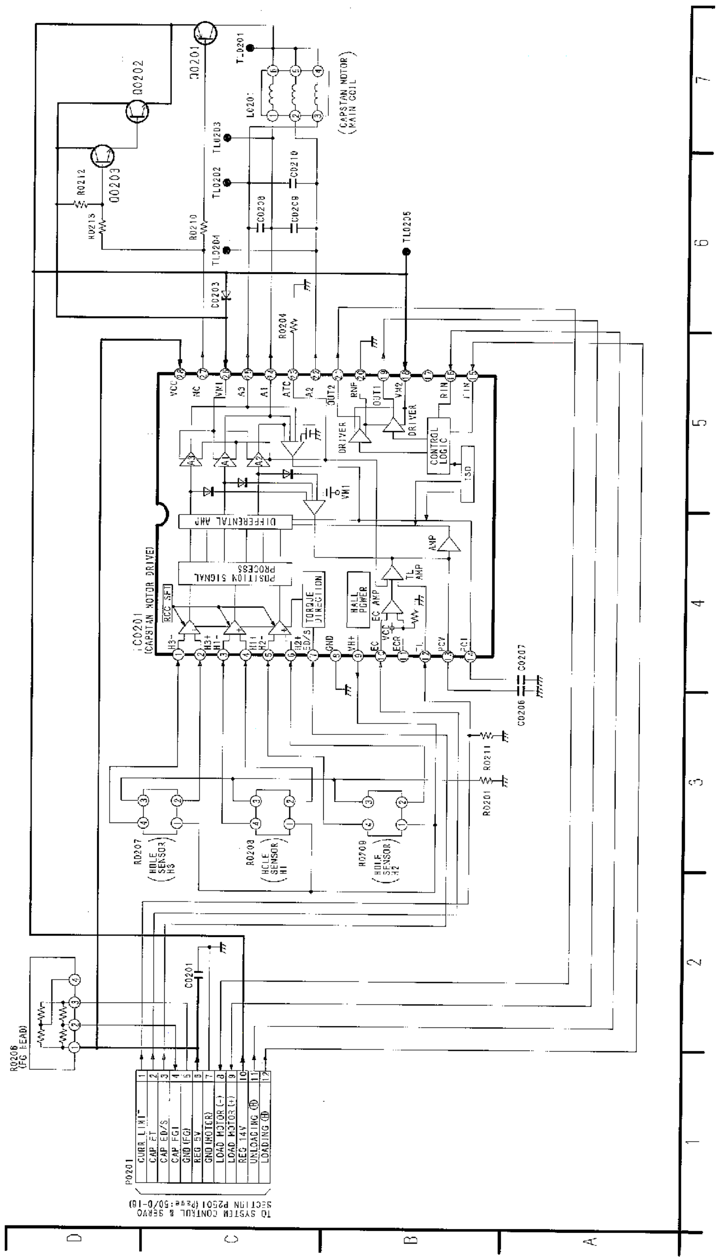
9 12 NICAM DECODER PACK SCHEMATIC DIAGRAM (NV-HD630EA/BD, HD635AM, HD675EA/BD)


AUDIO SIGNAL PATH
E
D
C
B
A
1
2
3
4
5
6
7
TO POWER SUPPLY /RF SECTION PK7301 (Page 48/B-9)
PK7301
CPSK/SIF
GND
TUNER AUDIO (N)
TUNER 5V
TO POWER SUPPLY /RF SECTION PK7302 (Page 48/A-9)
PK7302
IIC CLOCK
IIC DATA
TUNER AUDIO (R)
GND
TUNER AUDIO (L)
L7302 1u
C7302 6V100
C7301 0.01
C7304 6V100
FL7301 VLF0633
C7303 0.01
C7316 0.1
C7307 47P
R7302 0
C7311 0
IC7302 PST7043
(RESET)
IN
GND
OUT
C7308 50V2.2
C7312 0.1
LB7303 VLP0150
R7305 100
R7306 100
C7306 22P
C7305 22P
C7315 0.1
IC7301 TDA9874H
L7301 3.3u
R7326 39K
R7325 10K
R7324 39K
R7327 8200
D7302 BB135
C7330 39P
C7329 15P
X7302 VSX0953
C7328 0.033
C7327 0.33
TEST 1
VDD A2
VSS A2
ADD R2
I REF
TEST 2
XTAL O
XTAL I
V TUNE
ADD R1
P CLK
SIF 2
V REF1
SIF 1
C RESET
VSS D3
VDD D3
SCL
SDA
SDO
WS
SCK
SYS CLK
VDD D4
VSS D4
P1
MONO IN
EXT IR
EXT IL
V REF2
P2
VDD A3
VSS A3
TP1
NICAM
TP2
VDD D2
VSS D2
VDD D1
VSS D1
VSS A1
VDD A1
OUT R
OUT L
LB7302 VLP0150
C7326 0.1
LB7301 VLP0150
C7325 0.1
C7324 0.1
C7322 0.01
C7323 0.01
R7328 220
R7329 220
C7319 16V10
C7320 16V10
R7316 10K
TL7301
LB7304 VLP0150
C7313 0.1
TL7303
R7318 220
C7317 16V10
C7318 6V47
TL7304
C7321 0.1

NOTE:THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

NOTE:DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART. PLEASE REFER TO PARTS LIST.

9 13 CAPSTAN UNIT SCHEMATIC DIAGRAM


IC0201 (CAPSTAN MOTOR DRIVE)
VCC
NC
VM1
A3
A1
ATC
A2
OUT2
RNF
OUT1
VM2
RIN
FIN
H3-
H3+
H1+
H1-
H2-
H2+
ED/S
GND
VH+
EC
ECR
PCV
PC1
RCC SFT
DRIVER
CONTROL LOGIC
TSD
DIFFERENTIAL AMP
POSITION SIGNAL PROCESS
TORQUE DIRECTION
HALL POWER
EC AMP
TL AMP
AMP
Q0201
Q0202
Q0203
R0212
R0213
R0210
R0204
D0203
TL0201
TL0202
TL0203
TL0204
TL0205
C0208
C0209
C0210
L0201
(CAPSTAN MOTOR MAIN COIL)
C0206
C0207
R0211
R0201
R0207 (HOLE SENSOR H3)
R0203 (HOLE SENSOR H1)
R0209 (HOLE SENSOR H2)
C0201
R0206 (FG HEAD)
P0201
CURR LIMIT
CAP FT
CAP ED/S
CAP FG1
GND (FG)
REG 5V
GND (MOTOR)
LOAD MOTOR (-)
LOAD MOTOR (+)
REG 14V
UNLOADING (H)
LOADING (H)
TO SYSTEM CONTROL & SERVO SECTION P2501 (Page:50/D-16)
1
2
3
4
5
6
7
A
B
C
D

10 CIRCUIT BOARD ASSEMBLIES

10.1 POWER C.B.A

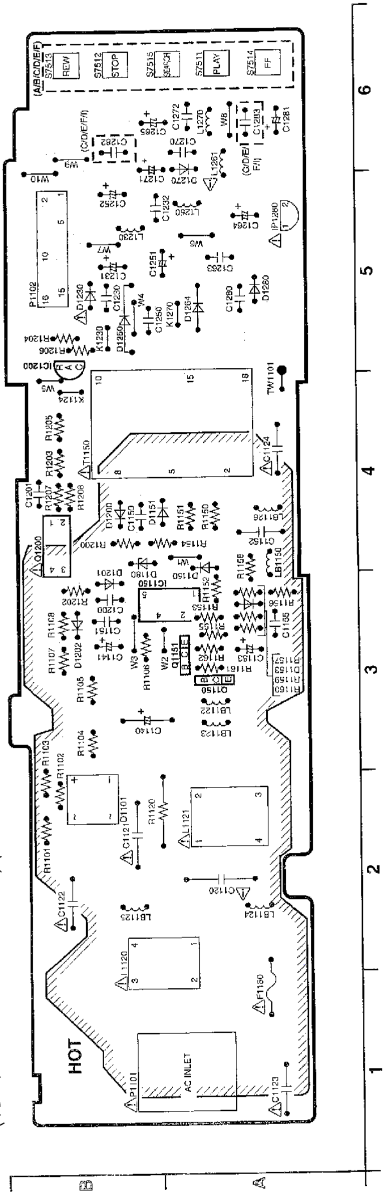
POWER C.B.A.	
Transistor	
Q1150	A-3
Q1151	A-3
Q1200	B-4
Integrated Circuit	
IC1150	B-3
IC1200	B-5
Connector	
P1101	B-1
P1102	B-5

ADDRESS INFORMATION

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTETISRICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

CAUTION THE STRIPED FRAME INDICATES THE PRIMARY CIRCUIT TO DISTINGUISH THE PRIMARY FROM THE SECONDARY CIRCUIT.
PAY ATTENTION NOT TO RECEIVE AN ELECTRIC SHOCK DURING REPAIR AND SERVICE OF THE PRODUCTS.

(VEP01848A:NV-HD630A/EA) (VEP01848C:NV-HD630AM/BD,HD635AM,HD640AM/EU)
(VEP01848B:NV-HD675A/EA) (VEP01848D:NV-HD675BD)

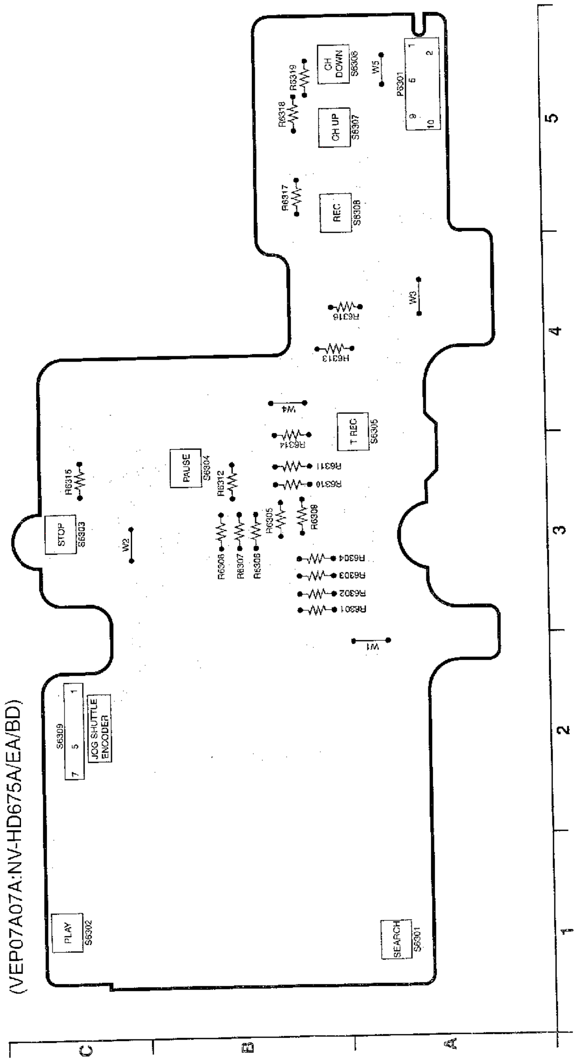

HOT
AC INLET
P1101
F1130
L1120
L1121
LB1124
LB1125
C1120
C1122
C1123
C1124
IC1150
IC1200
Q1150
Q1151
Q1200
T1150
TW1101
P1102
IP1280
S7513 REW
S7512 STOP
S7516 SEARCH
S7511 PLAY
S7514 FF
(A/B/C/D/E/F)
(C/D/E/F/I)
1
2
3
4
5
6
A
B

10.2 JOG/SHUTTLE C B A (NV-HD675A/EA/BD)

JOG/SHUTTLE C.B.A.	
Connector	
P6301	A-5

ADDRESS INFORMATION

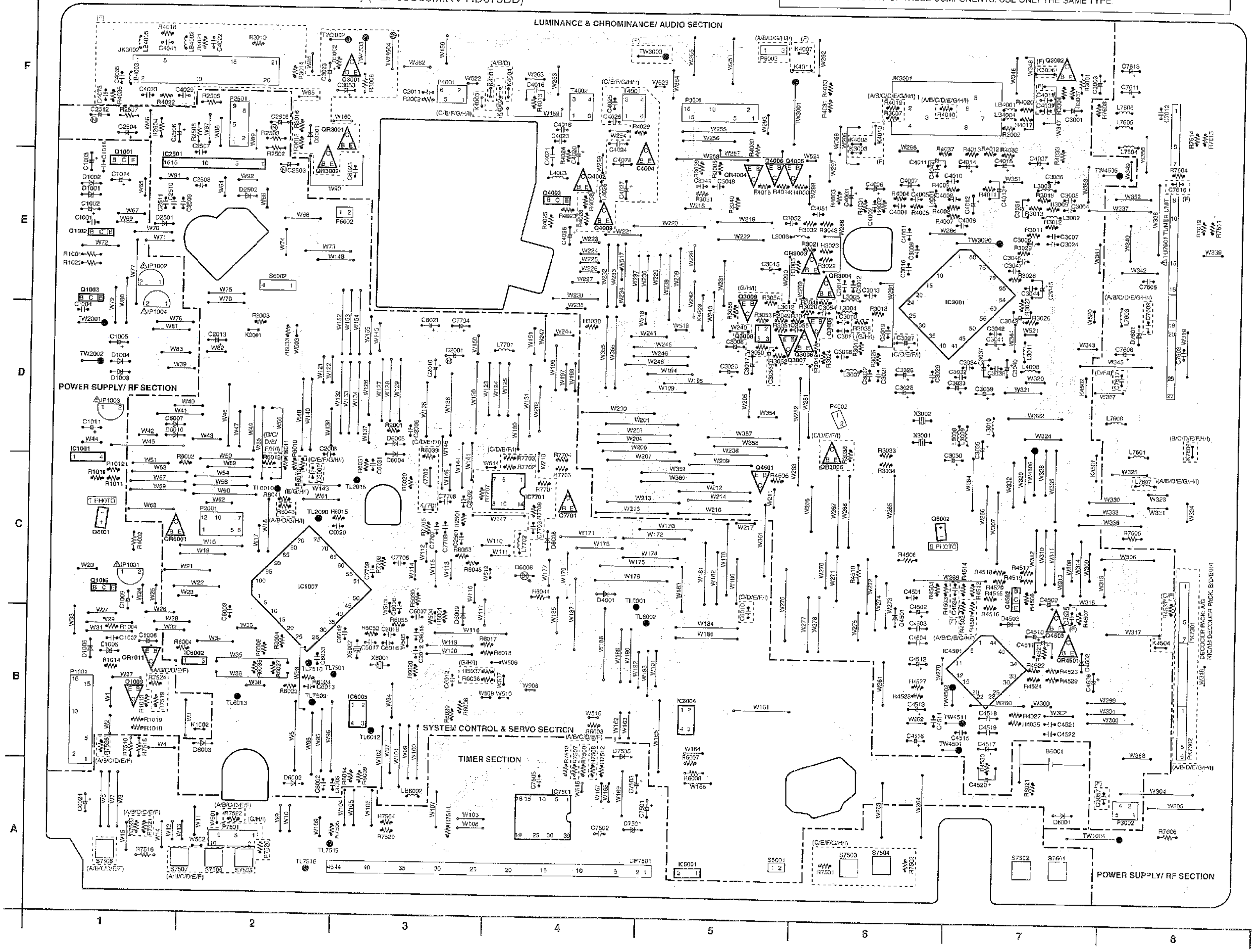
(VEP07A07A:NV-HD675A/EA/BD)


PLAY S6302
SEARCH S6301
S6309
JOG SHUTTLE ENCODER
STOP S6303
PAUSE S6304
T REC S6305
REC S6308
CH UP S6307
CH DOWN S6306
P6301
W1
W2
W3
W4
W5
R6301
R6302
R6303
R6304
R6305
R6306
R6307
R6308
R6309
R6310
R6311
R6312
R6314
R6315
R6316
R6317
R6318
R6319
H6313
1
2
3
4
5
A
B
C

10.3. MAIN C.B.A.

(VEP06C93A:NV-HD630A) (VEP06C93B:NV-HD630EA) (VEP06C93C:NV-HD630AM)
(VEP06C93E:NV-HD630BD) (VEP06C93G:NV-HD635AM) (VEP06C93D:NV-HD640AM/EU)
(VEP06C93H:NV-HD675A) (VEP06C93J:NV-HD675EA) (VEP06C93M:NV-HD675BD)

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

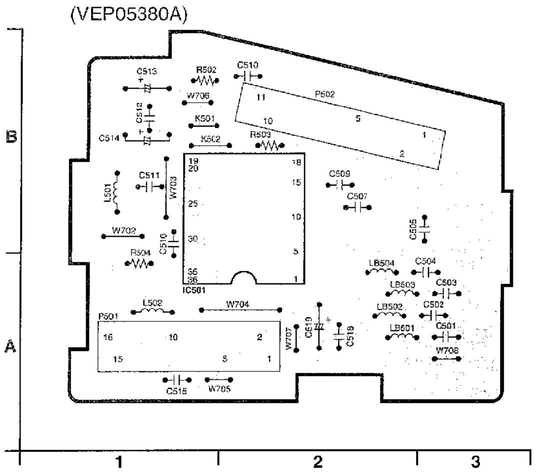

LUMINANCE & CHROMINANCE/ AUDIO SECTION
POWER SUPPLY/ RF SECTION
SYSTEM CONTROL & SERVO SECTION
TIMER SECTION
POWER SUPPLY/ RF SECTION
IC3001
IC6007
IC4501
IC7501
IC7701
TU7601 TUNER UNIT
PK7301
NICAM DECODER PACK BD/EA/H
DECODER PACK A/B
S.PHOTO
T.PHOTO
F
E
D
C
B
A
1
2
3
4
5
6
7
8

MAIN C.B.A.	
Transistor	
Q1001	E-1
Q1002	E-1
Q1003	E-1
Q1005	C-1
Q1009	B-1
Q3001	F-3
Q3002	F-7
Q3005	D-6
Q3006	D-6
Q3007	D-5
Q3008	D-5
Q3009	E-5
Q4002	E-4
Q4003	E-4
Q4004	E-4
Q4005	E-5
Q4006	E-5
Q4009	E-4
Q4501	C-5
Q4502	C-7
Q4503	B-7
Q6001	C-1
Q6002	C-6
Q7701	C-4
Transistor & Resistor	
QR1011	B-1
QR3001	F-2
QR3002	E-2
QR3003	E-5
QR3004	E-6
QR3006	D-6
QR4004	E-5
QR4501	B-7
QR6001	C-1
Integrated Circuit	
IC1001	D-1
IC2501	E-1
IC3001	E-6
IC4501	B-7
IC6001	A-5
IC6002	B-2
IC6004	B-5
IC6005	B-3
IC6007	C-2
IC7501	A-4
IC7701	C-4
Test Point	
TL2015	C-3
TL2090	C-2
TL6001	C-4
TL6002	B-5
TL6010	C-2
TL6012	B-3
TL6013	B-2
TL7501	B-2
TL7509	B-2
TL7510	B-2
TL7515	A-2
TL7516	A-2
TW1004	A-7
TW2001	D-1
TW2002	D-1
TW3001	F-5
TW3002	F-2
TW3003	F-4
TW3090	E-7
TW4501	B-7
TW4502	B-7
TW4503	F-3
TW4504	F-3
TW4505	E-7
TW4506	C-7
TW4511	B-7
Connector	
P1001	B-1
P2001	C-2
P2501	F-2
P3001	F-5
P3002	A-8
P4001	F-3
P4002	D-6
P6002	E-2
P6003	F-5
P7501	A-2
PK7301	B-8
PK7302	B-8
TU7601	E-8

ADDRESS INFORMATION

10.4. HEAD AMP C B A

(VEP05380A)

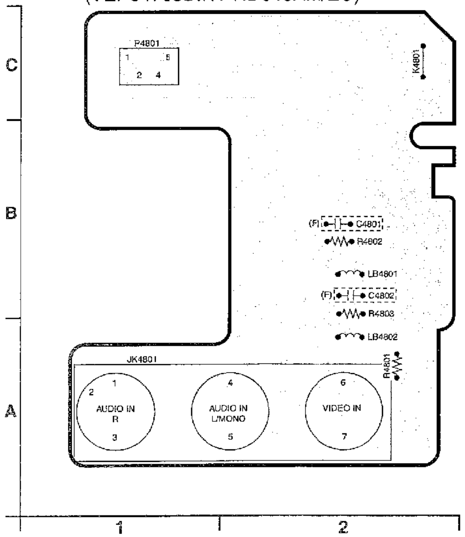

B
A
1
2
3
C513
R502
C510
W706
P602
11
10
5
1
2
C512
K501
C514
K502
R503
19
20
18
15
C509
C507
L501
C511
W703
25
10
C505
W702
C516
30
5
R504
55
56
1
IC501
LB504
C504
LB503
C503
L502
W704
LB502
C502
P501
16
10
2
W707
C519
C518
LB501
C501
15
5
1
W708
C515
W705

HEAD AMP C.B.A.	
Integrated Circuit	
IC501	A-1
Connector	
P501	A-1
P502	B-2

ADDRESS INFORMATION

10 5 FRONT JACK C B A

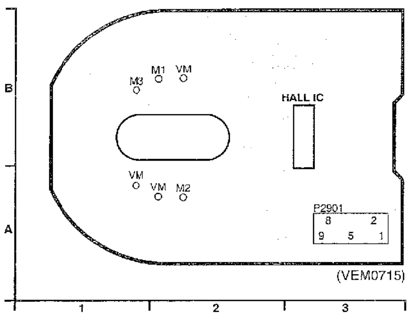
(VEP04735A:NV-HD630A/EA/AM/BD
HD635AM,HD675A/EA/BD)
(VEP04735B:NV-HD640AM/EU)


C
B
A
1
2
P4801
1
5
2
4
K4801
(F)
C4801
R4802
LB4801
(F)
C4802
R4803
LB4802
JK4801
R4801
2
1
AUDIO IN
R
3
4
AUDIO IN
L/MONO
5
6
VIDEO IN
7

FRONT JACK C.B.A.	
Connector	
P4801	C-1

ADDRESS INFORMATION

10.6 CYLINDER MOTOR UNIT

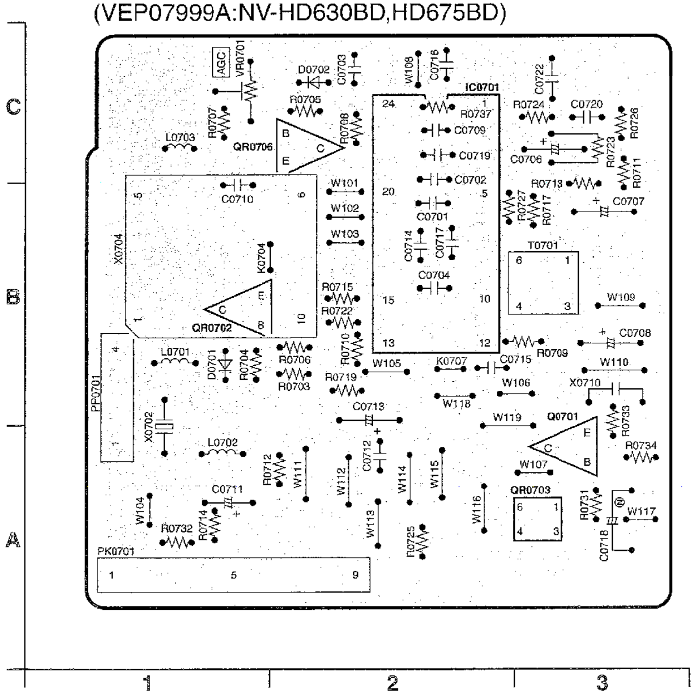

B
A
1
2
3
M1
VM
M3
HALL IC
VM
VM
M2
P2901
8
2
9
5
1
(VEM0715)

CYLINDER STATOR UNIT	
Integrated Circuit	
HALL IC	B-3
Connector	
P2901	A-3

ADDRESS INFORMATION

10.7. TV DEMODULATOR PACK C.B.A. (NV-HD630BD, 675BD)

(VEP07999A:NV-HD630BD,HD675BD)


C
B
A
1
2
3
AGC
VR0701
D0702
C0703
W109
C0716
IC0701
C0722
R0705
24
1
R0737
R0724
C0720
R0726
R0707
R0708
C0709
L0703
QR0706
B
C
E
C0719
C0706
R0723
R0711
C0702
C0710
W101
20
5
R0713
R0727
R0717
C0707
W102
C0701
W103
C0714
C0717
X0704
K0704
T0701
6
1
C0704
R0715
15
10
4
3
W109
E
C
QR0702
B
R0722
1
10
13
12
R0709
C0708
PP0701
L0701
D0701
R0704
R0706
R0710
W105
K0707
C0715
W110
R0703
R0719
W106
X0710
W118
C0713
R0733
X0702
W119
Q0701
E
L0702
R0712
W111
W112
C0712
W114
W115
C
R0734
W107
B
C0711
QR0703
W104
R0714
R0732
W113
R0725
W116
R0731
W117
C0718
PK0701
1
5
9

TV DEMODULATOR PACK C.B.A.	
Transistor	
Q0701	A-3
Transistor & Resistor	
QR0702	B-1
QR0703	A-3
QR0706	C-1
Integrated Circuit	
IC0701	C-2
Adjustment	
VR0701	C-1
Connector	
PK0701	A-1
PP0701	B-1

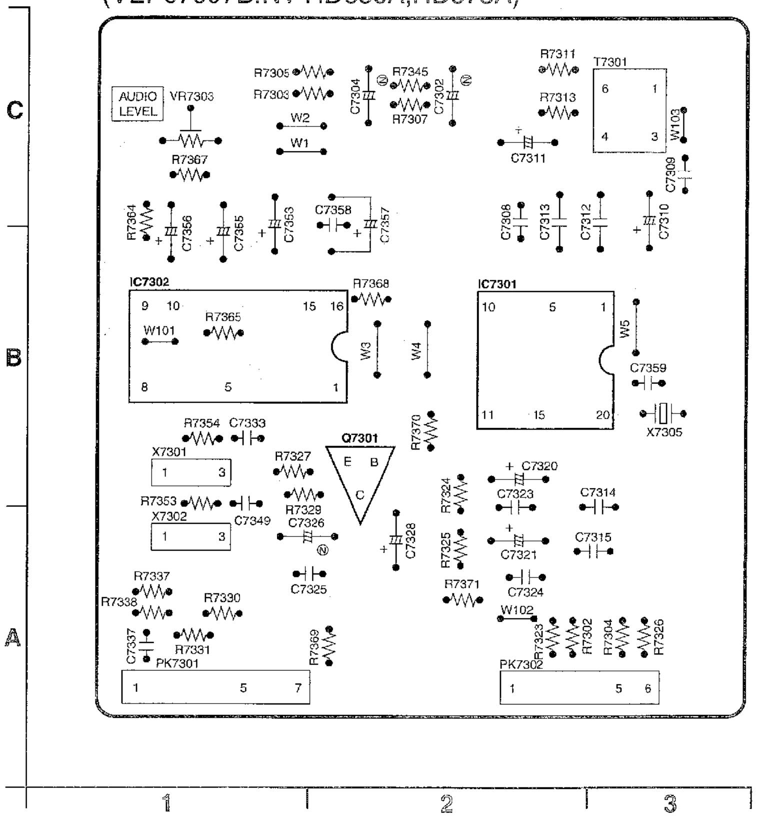
ADDRESS INFORMATION

10.8 DECODER PACK C.B.A. (NV-HD630A, HD675A)

DECODER PACK C.B.A.	
Transistor	
Q7301	B-2
Integrated Circuit	
IC7301	B-2
IC7302	B-1
Adjustment	
VR7303	C-1
Connector	
PK7301	A-1
PK7302	A-2

ADDRESS INFORMATION

(VEP07997B:NV-HD630A,HD675A)



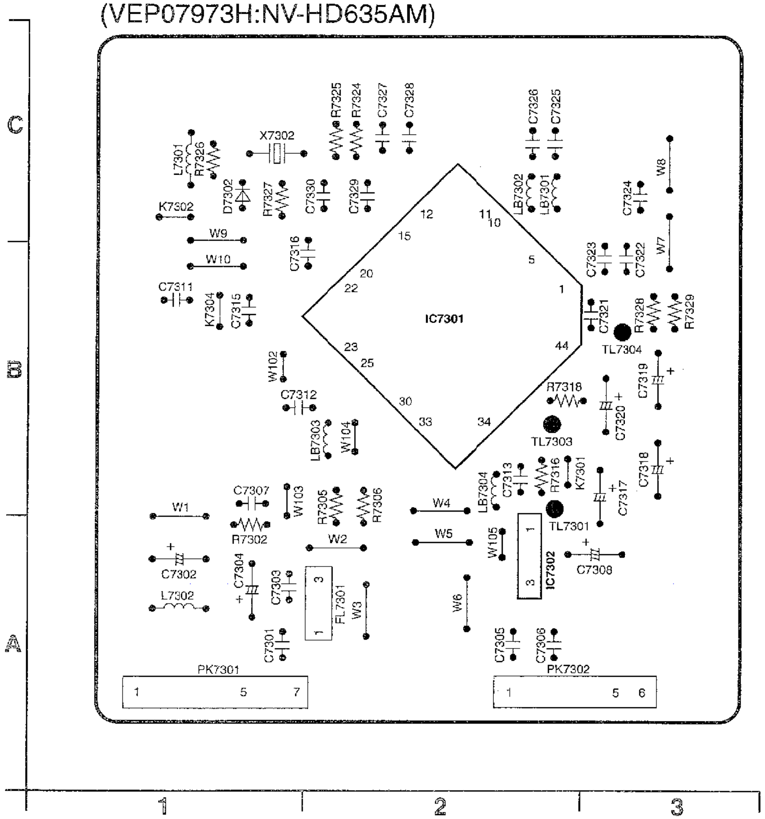
C
B
A
1
2
3
AUDIO LEVEL
VR7303
R7367
R7305
R7303
W2
W1
C7304
R7345
R7307
C7302
R7311
T7301
R7313
C7311
W103
C7309
R7364
C7356
C7365
C7353
C7358
C7357
C7308
C7313
C7312
C7310
IC7302
R7365
W101
R7368
W3
W4
IC7301
W5
C7359
X7305
R7354
C7333
X7301
R7353
X7302
C7349
R7327
R7329
C7326
Q7301
E
B
C
R7370
C7328
R7324
R7325
C7320
C7323
C7321
C7324
C7314
C7315
R7371
W102
C7325
R7337
R7338
R7330
R7331
C7337
PK7301
R7369
PK7302
R7323
R7302
R7304
R7326

10.9 NICAM DECODER PACK C.B.A. (NV-HD630EA/BD, HD635AM, HD675EA/BD)

NICAM DECODER PACK C.B.A.	
Integrated Circuit	
IC7301	B-2
IC7302	A-2
Test Point	
TL7301	A-2
TL7303	B-2
TL7304	B-3
Connector	
PK7301	A-1
PK7302	A-2

ADDRESS INFORMATION

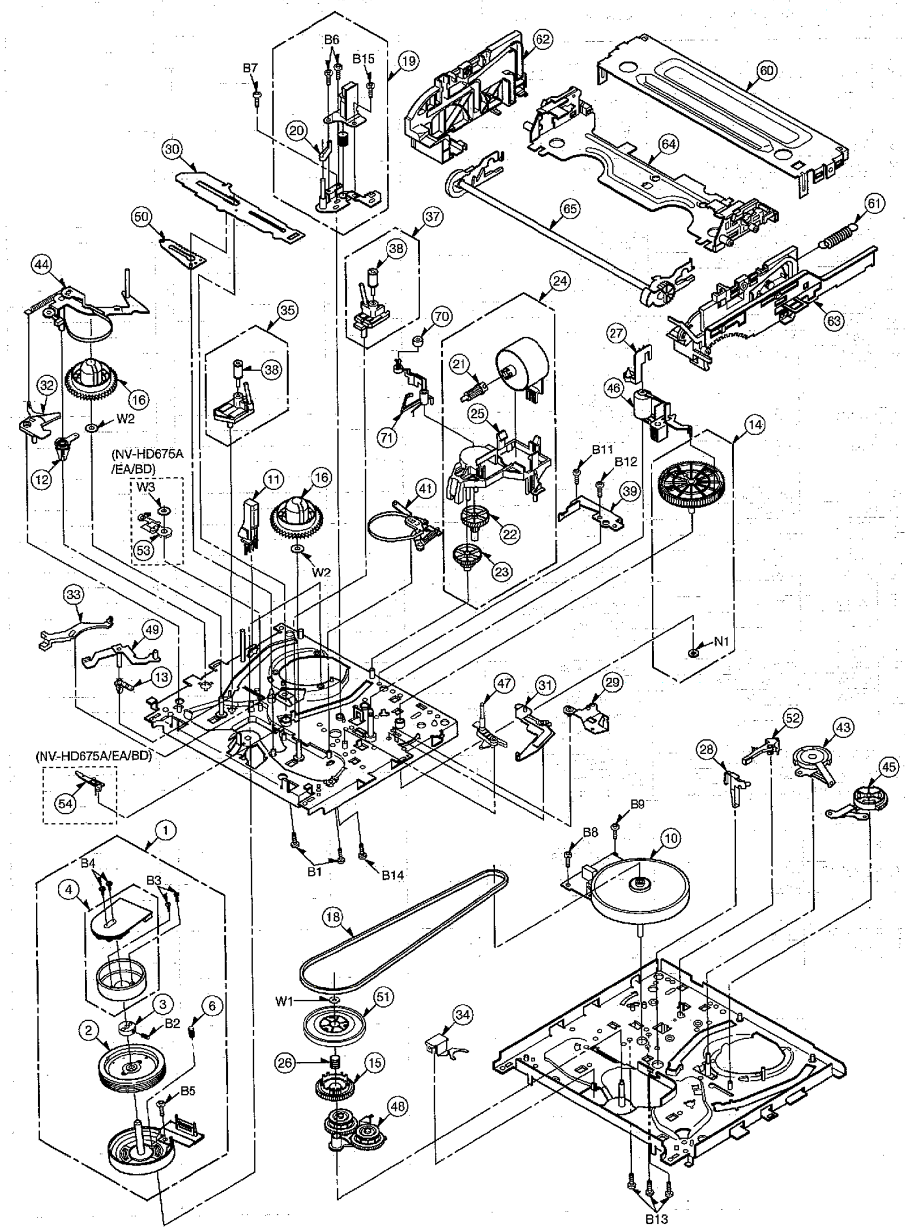
(VEP07973G:NV-HD630EA,HD675EA)
(VEP07973J:NV-HD630BD,HD675BD)
(VEP07973H:NV-HD635AM)



C
B
A
1
2
3
L7301
R7326
X7302
R7325
R7324
C7327
C7328
C7326
C7325
K7302
D7302
R7327
C7330
C7329
LB7302
LB7301
C7324
W8
W9
W10
C7316
C7323
C7322
W7
C7311
K7304
C7315
IC7301
C7321
R7328
R7329
TL7304
W102
C7312
R7318
C7319
C7320
LB7303
W104
TL7303
W1
C7307
W103
R7305
R7306
W4
LB7304
C7313
R7316
K7301
C7317
C7318
R7302
W2
W5
W105
TL7301
C7302
C7304
C7303
FL7301
W3
W6
IC7302
C7308
L7302
C7301
C7305
C7306
PK7301
PK7302

11 EXPLODED VIEWS & MECHANICAL REPLACEMENT PARTS LIST

11.1. CHASSIS PARTS SECTION

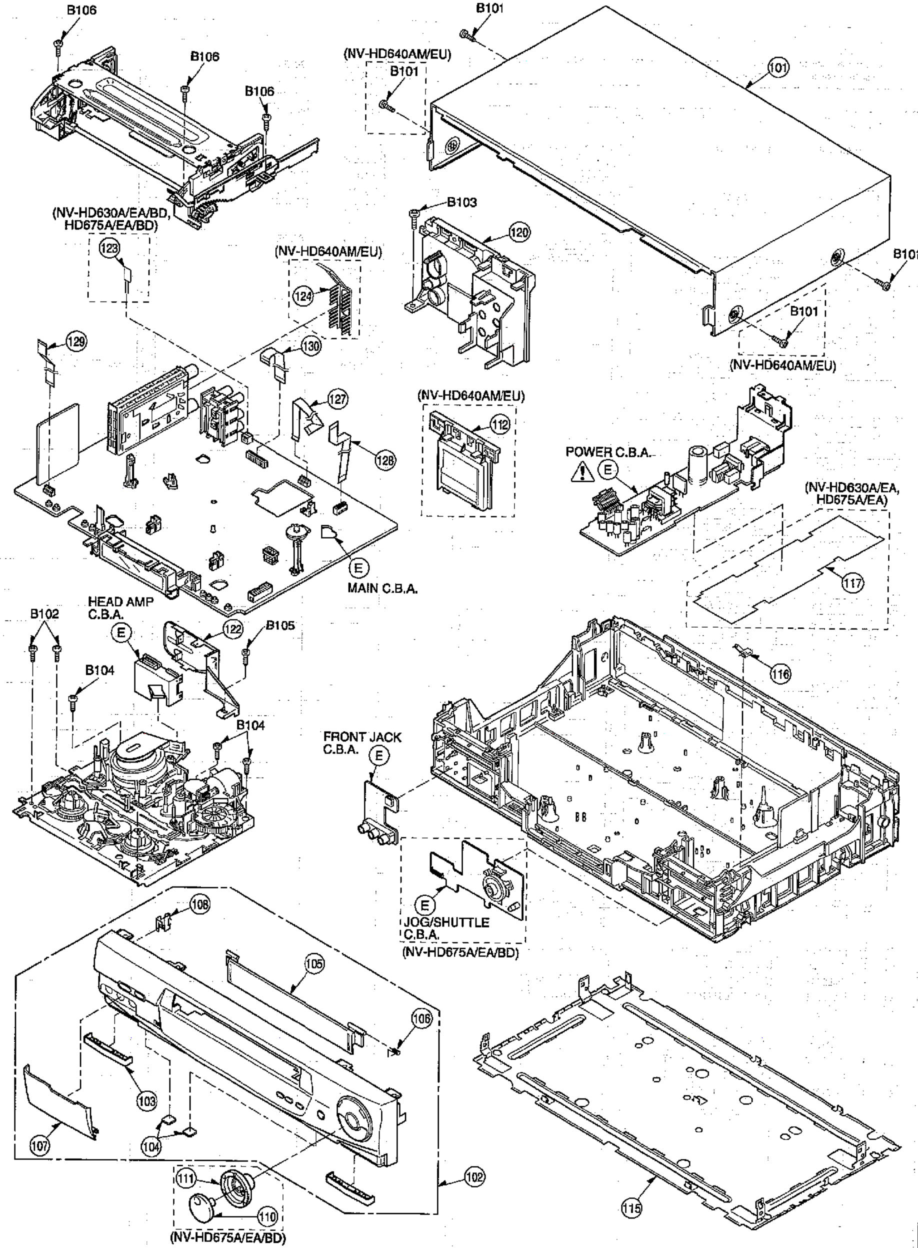


Note: 1. *Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE
Components identified with the mark ⚠ have the special characteristics for safety. When replacing any of these components, use only the same type.

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
1 (1)	VEG1504	CYLINDER UNIT	1	NV-HD630A/EA/AM/BD
				NV-HD635AM
				NV-HD640AM/EU
1 (1)	VEG1496	CYLINDER UNIT	1	NV-HD675A/EA/BD
2 (1)	VXP1803	UPPER CYLINDER UNIT	1	NV-HD630A/EA/AM/BD
				NV-HD635AM
				NV-HD640AM/EU
2 (1)	VXP1946	UPPER CYLINDER UNIT	1	NV-HD675A/EA/BD
3 (1)	VDB1256	CYLINDER RETAINER	1	
⚠ 4 (1)	VEM0715	CYLINDER MOTOR UNIT	1	
6 (1)	VXS0135	EARTH BRUSH UNIT	1	
10 (1)	VEK8841	CAPSTAN UNIT	1	
11 (1)	VBS0155	FE HEAD	1	
12 (1)	VDB1431	TENSION ARM BOSS	1	
13 (1)	VDB1460	SUPPLY BRAKE ARM BOSS	1	
14 (1)	VDG1220KIT	MAIN CAM GEAR	1	
15 (1)	VDG1221	CONVERSION GEAR	1	
16 (1)	VDR0350	SUPPLY/TAKE UP REEL TABLE	2	
18 (1)	VDV0382	CAPSTAN BELT	1	
19 (1)	VED0412	A/C HEAD UNIT	1	
20 (1)	VMX2656	P4 CAP	1	
21 (1)	VDG1217	WORM GEAR	1	
22 (1)	VDG1218	WORM WHEEL GEAR	1	
23 (1)	VDG1219	CENTRE GEAR	1	
24 (1)	VEM0604	LOADING MOTOR UNIT	1	
25 (1)	VMD2619	MOTOR BRACKET	1	
26 (1)	VMB3045	CONVERSION GEAR SPRING	1	
27 (1)	VMD2620	OPENER PIECE	1	
28 (1)	VMD2738	LED PRISM	1	
29 (1)	VML3165	DRIVE RACK ARM	1	
30 (1)	VML3166	MAIN LEVER	1	
31 (1)	VML3167	DRIVE MAIN LEVER ARM	1	
32 (1)	VML3172	SUPPLY SPRING ARM	1	
33 (1)	VML3176	CONVERSION LEVER A	1	
34 (1)	VML3177	CONVERSION LEVER B	1	
35 (1)	VXA6040	INCLINED BASE (S) UNIT	1	
37 (1)	VXA5854	INCLINED BASE (T) UNIT	1	
38 (1)	VXP1840	ROLLER POST	2	
39 (1)	VMA9872	SUPPORT ANGLE	1	
41 (1)	VXL2667	TAKE UP BRAKE ARM UNIT	1	
43 (1)	VXL2670	TAKE UP LOADING ARM UNIT	1	
44 (1)	VXL2798	TENSION ARM UNIT	1	
45 (1)	VXL2672	SUPPLY LOADING ARM UNIT	1	
46 (1)	VXL2785	PINCH ARM UNIT	1	
47 (1)	VXL2677	P5 ARM UNIT	1	
48 (1)	VXL2792	IDLER ARM UNIT	1	
49 (1)	VXL2733	SUPPLY BRAKE ARM UNIT	1	
50 (1)	VXL2747	LOADING RACK UNIT	1	
51 (1)	VXP1732	CENTRE CLUTCH UNIT	1	NV-HD630A/EA/AM/BD
				NV-HD635AM
				NV-HD640AM/EU
51 (1)	VXP1850	CENTRE CLUTCH UNIT	1	NV-HD675A/EA/BD
52 (1)	VXZ0430	SS BRAKE ARM UNIT	1	
53 (1)	VXL2783	REV ARM UNIT	1	NV-HD675A/EA/BD
54 (1)	VML3276	IDLER POSITIONING ARM	1	NV-HD675A/EA/BD
60 (1)	VMA9516	TOP PLATE	1	
61 (1)	VMB3047	CONNECTION SPRING	1	
62 (1)	VMD2625	SIDE PLATE (L)	1	
63 (1)	VXA5740	SIDE PLATE (R) UNIT	1	
64 (1)	VXA5746	CASSETTE HOLDER UNIT	1	
65 (1)	VXP1730	MAIN SHAFT UNIT	1	
70 (1)	VDP1668-K	CLEANER ROLLER	1	
71 (1)	VML3184	CLEANER ARM	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
B1 (1)	VHD1117	SCREW	2	
B2 (1)	VHD0842	SCREW	1	
B3 (1)	VHD0843	SCREW	2	
B4 (1)	VHD0844	SCREW	2	
B5 (1)	XYN26+C5	SCREW	1	
B6 (1)	VHD1066	SCREW	2	
B7 (1)	VHD1044	SCREW	1	
B8 (1)	VHD1060	SCREW	1	
B9 (1)	VHD1071	SCREW	1	
B11 (1)	XTS26+6F	SCREW	1	
B12 (1)	XTN26+6F	SCREW	1	
B13 (1)	XTN26+7J	SCREW	3	
B14 (1)	VHD1095	SCREW	1	
B15 (1)	VHD1185	SCREW	1	
N1 (1)	VHN0311	PUSH NUT	1	
W1 (1)	VMX2208	WASHER	1	
W2 (1)	VMX2650	WASHER	2	
W3 (1)	VMX2699	WASHER	1	NV-HD675A/EA/BD

11.2. CASING PARTS SECTION

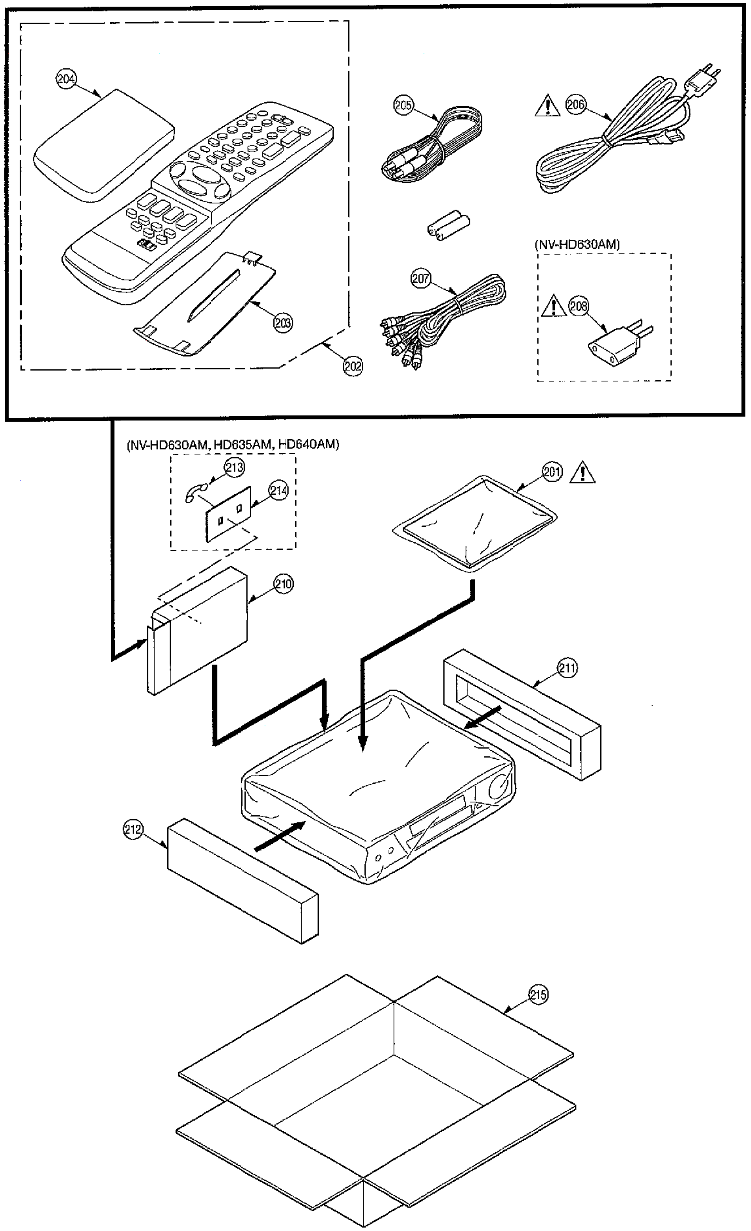

B106
B106
B106
(NV-HD630A/EA/BD,
HD675A/EA/BD)
123
(NV-HD640AM/EU)
124
129
130
127
128
E
MAIN C.B.A.
HEAD AMP
C.B.A.
E
B102
B104
122
B105
B104
B101
(NV-HD640AM/EU)
B101
101
B103
120
B101
B101
(NV-HD640AM/EU)
(NV-HD640AM/EU)
112
POWER C.B.A.
E
(NV-HD630A/EA,
HD675A/EA)
117
116
FRONT JACK
C.B.A.
E
E
JOG/SHUTTLE
C.B.A.
(NV-HD675A/EA/BD)
108
105
106
103
107
104
111
110
(NV-HD675A/EA/BD)
102
115

Note: 1. *Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE
Components identified with the mark ⚠ have the special characteristics for safety. When replacing any of these components, use only the same type.

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
101 (2)	VGM1406	TOP PANEL	1	NV-HD630A/EA/AM/BD NV-HD635AM NV-HD675A/EA/BD
101 (2)	VGM1549	TOP PANEL	1	NV-HD640AM/EU
102 (2)	VYP7382	FRONT PANEL UNIT	1	NV-HD630A
102 (2)	VYP7383	FRONT PANEL UNIT	1	NV-HD630EA
102 (2)	VYP7403	FRONT PANEL UNIT	1	NV-HD630AM
102 (2)	VYP7405	FRONT PANEL UNIT	1	NV-HD630BD
102 (2)	VYP7406	FRONT PANEL UNIT	1	NV-HD635AM
102 (2)	VYP7404	FRONT PANEL UNIT	1	NV-HD640AM/EU
102 (2)	VYP7413	FRONT PANEL UNIT	1	NV-HD675A
102 (2)	VYP7414	FRONT PANEL UNIT	1	NV-HD675EA
102 (2)	VYP7415	FRONT PANEL UNIT	1	NV-HD675BD
103 (2)	RKA0072	FOOT	2	
104 (2)	VKA0192	LEG	2	
105 (2)	VKF2983	BLINDER PANEL	1	
106 (2)	VMB2521	BLINDER SPRING	1	
107 (2)	VKF3132	DOOR	1	NV-HD630A/AM NV-HD640AM/EU NV-HD675A
107 (2)	VKF3133	DOOR	1	NV-HD630EA NV-HD675EA
107 (2)	VKF3136	DOOR	1	NV-HD630BD NV-HD635AM NV-HD675BD
108 (2)	VMC1289	JACK EARTH SPRING	1	
110 (2)	VGU7949	JOG DIAL	1	NV-HD675A/EA/BD
111 (2)	VGU7950	SHUTTLE RING	1	NV-HD675A/EA/BD
115 (2)	VKU0519	BOTTOM PLATE	1	
116 (2)	VMC1065	EARTH SPRING	1	
⚠ 117 (2)	VMZ2852	BARRIER	1	NV-HD630A/EA NV-HD675A/EA
120 (2)	VJH1089	JACK PLATE	1	NV-HD630A/EA/AM/BD NV-HD635AM NV-HD675A/EA/BD
120 (2)	VJH1090	JACK PLATE	1	NV-HD640AM/EU
121 (2)	VJH1048	AV JACK PLATE	1	NV-HD640AM/EU
122 (2)	VSC4937	HEAD AMP SHIELD (BOTTOM)	1	
123 (2)	VEK8192	DEW SENSOR	1	NV-HD630A/EA/BD NV-HD675A/EA/BD
124 (2)	VMC1572	RF EARTH SPRING	1	NV-HD640AM/EU
127 (2)	VWJ1128	FLAT CARD CABLE (6P)	1	P4001-A/C HEAD
128 (2)	VWJ1265	FLAT CARD CABLE (9P)	1	P2501-CYLINDER
129 (2)	VWJ05HW100MM	FLAT CARD CABLE (5P)	1	P3002-P4801
130 (2)	VWJ16HW095MM	FLAT CARD CABLE (16P)	1	P3001-P501
B101 (2)	XTW3+10TFC	SCREW	2	NV-HD630A/EA/AM/BD NV-HD635AM NV-HD675A/EA/BD
B101 (2)	XTW3+10TFC	SCREW	4	NV-HD640AM/EU
B102 (2)	VHD0168	SCREW	2	
B103 (2)	VHD0773	SCREW	1	
B104 (2)	VHD1065	SCREW	3	
B105 (2)	XTV26+6FR	SCREW	1	
B106 (2)	XTV26+8FR	SCREW	3	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks

11.3. PACKING PARTS SECTION



Note: 1. *Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE
Components identified with the mark ⚠ have the special characteristics for safety. When replacing any of these components, use only the same type.

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
⚠ 201 (3)	VQT8153	OPERATING INSTRUCTIONS	1	NV-HD630A/EA
		(ENGLISH)		
⚠ 201 (3)	VQT8154	OPERATING INSTRUCTIONS	1	NV-HD630AM
		(ENGLISH/ARABIC)		
⚠ 201 (3)	VQT8156	OPERATING INSTRUCTIONS	1	NV-HD630BD
		(ENGLISH/CHINESE)		
⚠ 201 (3)	VQT8157	OPERATING INSTRUCTIONS	1	NV-HD635AM
		(ENGLISH)		
⚠ 201 (3)	VQT8378	OPERATING INSTRUCTIONS	1	NV-HD640AM
		(ENGLISH/RUSSIAN)		
⚠ 201 (3)	VQT8155	OPERATING INSTRUCTIONS	1	NV-HD640EU
		(ENGLISH/RUSSIAN)		
⚠ 201 (3)	VQT8158	OPERATING INSTRUCTIONS	1	NV-HD675A/EA
		(ENGLISH)		
⚠ 201 (3)	VQT8159	OPERATING INSTRUCTIONS	1	NV-HD675BD
		(ENGLISH/CHINESE)		
202 (3)	VEQ2309	REMOTE CONTROLLER	1	NV-HD630A/EA/BD
				NV-HD635AM
				NV-HD675A/EA/BD
202 (3)	VEQ2308	REMOTE CONTROLLER	1	NV-HD630AM
202 (3)	VEQ2307	REMOTE CONTROLLER	1	NV-HD640AM/EU
203 (3)	VKF3139	BATTERY COVER	1	
204 (3)	VGP4960	DOOR PANEL	1	
205 (3)	VJA0376	DIN RF CABLE	1	
⚠ 206 (3)	VJA0754	AC CORD	1	NV-HD630A/EA
				NV-HD675A/EA
⚠ 206 (3)	VJA0664	AC CORD	1	NV-HD630AM
				NV-HD635AM
				NV-HD640AM/EU
⚠ 206 (3)	VJA0733	AC CORD	1	NV-HD630BD
				NV-HD675BD
207 (3)	VJA1062	AV CORD	1	
⚠ 208 (3)	VJP2974	AC PLUG ADAPTOR	1	NV-HD630AM
210 (3)	VPK1726	ACCESSORIES PACKING	1	NV-HD630A/EA
				NV-HD640EU
				NV-HD675A/EA
210 (3)	VPK2203	ACCESSORIES PACKING	1	NV-HD630AM
				NV-HD635AM
				NV-HD640AM
210 (3)	VPK0825	ACCESSORIES PACKING	1	NV-HD630BD
				NV-HD675BD
211 (3)	VPN4545	CUSHION (R)	1	NV-HD630A/EA/AM
				NV-HD635AM
				NV-HD640AM/EU
				NV-HD675A/EA
211 (3)	VPN4750	CUSHION (R)	1	NV-HD630BD
				NV-HD675BD
212 (3)	VPN4546	CUSHION (L)	1	NV-HD630A/EA/AM
				NV-HD635AM
				NV-HD640AM/EU
				NV-HD675A/EA
212 (3)	VPN4751	CUSHION (L)	1	NV-HD630BD
				NV-HD675BD
213 (3)	VPQ0134	HUNDLE	1	NV-HD630AM
				NV-HD635AM
				NV-HD640AM
214 (3)	VMD3712	REINFORCE PLATE	1	NV-HD630AM
				NV-HD635AM
				NV-HD640AM
215 (3)	VPG0A39	PACKING	1	NV-HD630A
215 (3)	VPG0A40	PACKING	1	NV-HD630EA
215 (3)	VPG0A41	PACKING	1	NV-HD630AM
215 (3)	VPG0A43	PACKING	1	NV-HD630BD
215 (3)	VPG0A44	PACKING	1	NV-HD635AM
215 (3)	VPG0B77	PACKING	1	NV-HD640AM
215 (3)	VPG0A42	PACKING	1	NV-HD640EU
215 (3)	VPG0A46	PACKING	1	NV-HD675A
215 (3)	VPG0A47	PACKING	1	NV-HD675EA
215 (3)	VPG0A48	PACKING	1	NV-HD675BD

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
		SERVICE FIXTURES & TOOLS		
	VFJ8125H3F	VHS ALIGNMENT TAPE (PAL)	1	
	VFK0335	RETAINING RING REMOVER	1	
		(3mm/4mm)		
	VFK0329	POST ADJUSTMENT SCREWDRIVER	1	
	VFK0326	HEX WRENCH SET	1	
	VFK0132	BACK TENSION METER	1	
	VFK27	HEAD CLEANING STICK	1	
	VFK1024	MOLYTONE GREASE	1	
	VFK0330	FINE ADJUSTMENT GEAR DRIVER	1	
	VFK2744	16P EXTENSION CABLE	1	MAIN - POWER
	VFK1301	SILICONE GREASE	1	

12 ELECTRICAL REPLACEMENT PARTS LIST

Note:
1. Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE: Components identified with the mark ⚠ have the special characteristics for safety. When replacing any of these components, use only the same type.
3. Unless otherwise specified,
   All resistors are in OHMS, K=1,000 OHMS. All capacitors are in MICROFARADS (uf), P=uuF.
4. The P.C. Board units marked width "■" show below the main assembled parts.
5. The marking (RTL) indicaters the retention time is limited for this item.
   After the discontinuation of this assembly in production, it will no longer be available.

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
■	VEP06C93A	MAIN C. B. A.	1	(RTL)
		(Page:69)		NV-HD630A
				THE FOLLOWING C. B. A. IS
				INCLUDED IN MAIN C. B. A.
				VEP07997B
□	VEP07997B	DECODER PACK C. B. A.	1	(RTL)
				INCLUDED IN
				MAIN C. B. A. (VEP06C93A).
■	VEP06C93B	MAIN C. B. A.	1	(RTL)
		(Page:73)		NV-HD630EA
				THE FOLLOWING C. B. A. IS
				INCLUDED IN MAIN C. B. A.
				VEP07973G
□	VEP07973G	NICAM DECODER PACK C. B. A.	1	(RTL)
				INCLUDED IN
				MAIN C. B. A. (VEP06C93B).
■	VEP06C93C	MAIN C. B. A.	1	(RTL)
		(Page:76)		NV-HD630AM
■	VEP06C93E	MAIN C. B. A.	1	(RTL)
		(Page:78)		NV-HD630BD
				THE FOLLOWING C. B. A. S ARE
				INCLUDED IN MAIN C. B. A.
				VEP07973J
				VEP07999A
□	VEP07973J	NICAM DECODER PACK C. B. A.	1	(RTL)
				INCLUDED IN
				MAIN C. B. A. (VEP06C93E).
□	VEP07999A	TV DEMODULATOR PACK C. B. A	1	(RTL)
				INCLUDED IN
				MAIN C. B. A. (VEP06C93E).
■	VEP06C93G	MAIN C. B. A.	1	(RTL)
		(Page:82)		NV-HD635AM
				THE FOLLOWING C. B. A. IS
				INCLUDED IN MAIN C. B. A.
				VEP07973H
□	VEP07973H	NICAM DECODER PACK C. B. A.	1	(RTL)
				INCLUDED IN
				MAIN C. B. A. (VEP06C93G).
■	VEP06C93D	MAIN C. B. A.	1	(RTL)
		(Page:85)		NV-HD640AM/EU
■	VEP06C93H	MAIN C. B. A.	1	(RTL)
		(Page:88)		NV-HD675A
				THE FOLLOWING C. B. A. IS
				INCLUDED IN MAIN C. B. A.
				VEP07997B
□	VEP07997B	DECODER PACK C. B. A.	1	(RTL)
				INCLUDED IN
				MAIN C. B. A. (VEP06C93H).
■	VEP06C93J	MAIN C. B. A.	1	(RTL)
		(Page:91)		NV-HD675EA
				THE FOLLOWING C. B. A. IS
				INCLUDED IN MAIN C. B. A.
				VEP07973G
□	VEP07973G	NICAM DECODER PACK C. B. A.	1	(RTL)
				INCLUDED IN
				MAIN C. B. A. (VEP06C93J).
■	VEP06C93M	MAIN C. B. A.	1	(RTL)
		(Page:95)		NV-HD675BD
				THE FOLLOWING C. B. A. S ARE
				INCLUDED IN MAIN C. B. A.
				VEP07973J
				VEP07999A
□	VEP07973J	NICAM DECODER PACK C. B. A.	1	(RTL)
				INCLUDED IN
				MAIN C. B. A. (VEP06C93M).
□	VEP07999A	TV DEMODULATOR PACK C. B. A	1	(RTL)
				INCLUDED IN
				MAIN C. B. A. (VEP06C93M).
■	VEP05380A	HEAD AMP C. B. A.	1	(RTL)
		(Page:98)		
⚠ ■	VEP01848A	POWER C. B. A.	1	(RTL)
		(Page:98)		NV-HD630A/EA
⚠ ■	VEP01848C	POWER C. B. A.	1	(RTL)
		(Page:99)		NV-HD630AM/BD
				NV-HD635AM
				NV-HD640AM/EU
⚠ ■	VEP01848B	POWER C. B. A.	1	(RTL)
		(Page:100)		NV-HD675A/EA
⚠ ■	VEP01848D	POWER C. B. A.	1	(RTL)
		(Page:100)		NV-HD675BD
■	VEP04735A	FRONT C. B. A.	1	(RTL)
		(Page:101)		NV-HD630A/EA/AM/BD
				NV-HD635AM
				NV-HD675A/EA/BD
■	VEP04735B	FRONT C. B. A.	1	(RTL)
		(Page:101)		NV-HD640AM/EU
■	VEP07A07A	JOG C. B. A.	1	(RTL)
		(Page:101)		NV-HD675A/EA/BD
■	------------	CYLINDER STATOR C. B. A.	1	INCLUDED IN
		(Page:101)		CYLINDER MOTOR UNIT
				(VEM0751).
■	------------	CAPSTAN DRIVE C. B. A.	1	INCLUDED IN
				CAPSTAN UNIT (VEK8841).
⚠ TU7601	ENG57806G1	TUNER	1	NV-HD630A/EA
				NV-HD675A/EA
⚠ TU7601	ENG57807G1	TUNER	1	NV-HD630AM
				NV-HD635AM
⚠ TU7601	ENG47304G1	TUNER	1	NV-HD630BD
				NV-HD675BD
⚠ TU7601	ENG57808G1	TUNER	1	NV-HD640AM/EU
⚠ F1180	XBA2C16TB0	FUSE	1	
■	VEP06C93A	MAIN C. B. A.		(RTL)
				NV-HD630A
B6001	CR2354-1GUF	LITHIUM BATTERY	1	
C1001	ECUM1H103ZFN	C. CAPACITOR CH 50V 0. 01U	1	
C1002	VCEA0JCB220	E. CAPACITOR 6. 3V 22U	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C1003	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C1004	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C1005	VCEA1CCB470	E.CAPACITOR 16V 47U	1	
C1007	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C1008	VCEA0JBS470	E.CAPACITOR 6.3V 47U	1	
C1009	VCEA0JBS101	E.CAPACITOR 6.3V 100U	1	
C1011	VCEA1ECB470	E.CAPACITOR 25V 47U	1	
C1014	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C1015	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C2001	ECEA1CKN220	E.CAPACITOR 16V 22U	1	
C2006	ECUM1C474KBN	C.CAPACITOR CH 16V 0.47U	1	
C2008	ECUM1H392KBN	C.CAPACITOR CH 50V 3900P	1	
C2010	VCEA1HCB4R7	E.CAPACITOR 50V 4.7U	1	
C2011	ECUM1H222KBN	C.CAPACITOR CH 50V 2200P	1	
C2012	ECUM1H563KBN	C.CAPACITOR CH 50V 0.056U	1	
C2013	VCEA1HCB3R3	E.CAPACITOR 50V 3.3U	1	
C2501,02	ECUM1H563KBN	C.CAPACITOR CH 50V 0.056U	2	
C2503	ECEA1VKN4R7	E.CAPACITOR 35V 4.7U	1	
C2504	VCEA1ECB470	E.CAPACITOR 25V 47U	1	
C2505	ECEA1VKN4R7	E.CAPACITOR 35V 4.7U	1	
C2506	VCEA0JCB221	E.CAPACITOR 6.3V 220U	1	
C2507	ECUM1H473ZFN	C.CAPACITOR CH 50V 0.047U	1	
C2508	ECUM1C683KBN	C.CAPACITOR CH 16V 0.068U	1	
C2509-11	ECUM1C154KBN	C.CAPACITOR CH 16V 0.15U	3	
C2512	ECEA1VKN4R7	E.CAPACITOR 35V 4.7U	1	
C3001	VCEA1CCB470	E.CAPACITOR 16V 47U	1	
C3003	VCEA0JEC471	E.CAPACITOR 6.3V 470U	1	
C3004	ECUM1H560JCN	C.CAPACITOR CH 50V 56P	1	
C3005	ECUM1E104KBN	C.CAPACITOR CH 25V 0.1U	1	
C3006	ECUM1H220JCN	C.CAPACITOR CH 50V 22P	1	
C3007	ECUM1H821JCN	C.CAPACITOR CH 50V 820P	1	
C3008	VCEA1HCB010	E.CAPACITOR 50V 1U	1	
C3009	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C3010	ECUM1H680JCN	C.CAPACITOR CH 50V 68P	1	
C3011	ECUM1H120JCN	C.CAPACITOR CH 50V 12P	1	
C3012	ECUM1E104KBN	C.CAPACITOR CH 25V 0.1U	1	
C3013	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3014	ECUM1E104KBN	C.CAPACITOR CH 25V 0.1U	1	
C3015	VCEA0JCB221	E.CAPACITOR 6.3V 220U	1	
C3016	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C3017	VCEA1HCB010	E.CAPACITOR 50V 1U	1	
C3018	ECUM1H103KBN	C.CAPACITOR CH 50V 0.01U	1	
C3019	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C3020	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C3021	ECUM1E104KBN	C.CAPACITOR CH 25V 0.1U	1	
C3022	ECUM1H222KBN	C.CAPACITOR CH 50V 2200P	1	
C3024	ECUM1H221JCN	C.CAPACITOR CH 50V 220P	1	
C3026	VCEA1HCB3R3	E.CAPACITOR 50V 3.3U	1	
C3028	VCEA0JCB470	E.CAPACITOR 6.3V 47U	1	
C3029	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C3030	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C3031	VCEA0JCB220	E.CAPACITOR 6.3V 22U	1	
C3032	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3033	VCEA1HCBR47	E.CAPACITOR 50V 0.47U	1	
C3034	ECUM1H222KBN	C.CAPACITOR CH 50V 2200P	1	
C3035	VCEA1ECB4R7	E.CAPACITOR 25V 4.7U	1	
C3036	ECUM1H560JCN	C.CAPACITOR CH 50V 56P	1	
C3037	VCEA1ECB4R7	E.CAPACITOR 25V 4.7U	1	
C3038	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C3039	VCEA0JCB221	E.CAPACITOR 6.3V 220U	1	
C3040	VCEA1ECB4R7	E.CAPACITOR 25V 4.7U	1	
C3041	VCEA0JCB221	E.CAPACITOR 6.3V 220U	1	
C3042	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C3043	VCEA0JCB220	E.CAPACITOR 6.3V 22U	1	
C3044	ECUM1E563KBN	C.CAPACITOR CH 25V 0.056U	1	
C3045	VCEA1CCB100	E.CAPACITOR 16V 10U	1	
C3046	ECUM1H561JCN	C.CAPACITOR CH 50V 560P	1	
C3047	ECUM1H221JCN	C.CAPACITOR CH 50V 220P	1	
C3048,49	ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	2	
C3051,52	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C4001	ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C4002	ECUM1H822KBN	C.CAPACITOR CH 50V 8200P	1	
C4003	VCEA0JCB220	E.CAPACITOR 6.3V 22U	1	
C4004	ECUM1H182JCN	C.CAPACITOR CH 50V 1800P	1	
C4005	ECUM1H272KBN	C.CAPACITOR CH 50V 2700P	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C4006	VCEA1HCB010	E.CAPACITOR 50V 1U	1	
C4007	VCEA1ECB4R7	E.CAPACITOR 25V 4.7U	1	
C4008	ECUM1H822KBN	C.CAPACITOR CH 50V 8200P	1	
C4009	ECUM1E273KBN	C.CAPACITOR CH 25V 0.027U	1	
C4010	ECUM1H822KBN	C.CAPACITOR CH 50V 8200P	1	
C4011	VCEA1CCB100	E.CAPACITOR 16V 10U	1	
C4012	VCEA0JCB470	E.CAPACITOR 6.3V 47U	1	
C4013	VCEA0JCB220	E.CAPACITOR 6.3V 22U	1	
C4014,15	VCEA1HCBR33	E.CAPACITOR 50V 0.33U	2	
C4016	ECKF1H102KB	C.CAPACITOR 50V 1000P	1	
C4018	ECUM1H223KBN	C.CAPACITOR CH 50V 0.022U	1	
C4020	VCEA0JCB221	E.CAPACITOR 6.3V 220U	1	
C4021	ECQB1H223JF	P.CAPACITOR 50V 0.022U	1	
C4023	ECUM1H152KBN	C.CAPACITOR CH 50V 1500P	1	
C4028	VCEA0JCB470	E.CAPACITOR 6.3V 47U	1	
C4037	VCEA1HCBR33	E.CAPACITOR 50V 0.33U	1	
C4042	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C4501	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C4502	ECA1CAK100X	E.CAPACITOR 16V 10U	1	
C4503	ECQB1H223JF	P.CAPACITOR 50V 0.022U	1	
C4504	ECQB1H472JF	P.CAPACITOR 50V 4700P	1	
C4506	VCEA1HCB4R7	E.CAPACITOR 50V 4.7U	1	
C4509,10	ECA0JAK101X	E.CAPACITOR 6.3V 100U	2	
C4511	ECA1HAK4R7	E.CAPACITOR 50V 4.7U	1	
C4512	VCEA0JAW330	E.CAPACITOR 6.3V 33U	1	
C4513	ECA0JAK101X	E.CAPACITOR 6.3V 100U	1	
C4514	ECUM1H223KBN	C.CAPACITOR CH 50V 0.022U	1	
C4515	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C4516	VCEA0JAW330	E.CAPACITOR 6.3V 33U	1	
C4517	ECA1CAK100X	E.CAPACITOR 16V 10U	1	
C4518	ECQB1H223JF	P.CAPACITOR 50V 0.022U	1	
C4519	ECQB1H472JF	P.CAPACITOR 50V 4700P	1	
C4520	VCEA0JCB470	E.CAPACITOR 6.3V 47U	1	
C4521,22	ECUM1H152KBN	C.CAPACITOR CH 50V 1500P	2	
C6002	ECUM1H221JCN	C.CAPACITOR CH 50V 220P	1	
C6003	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C6006,07	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	2	
C6009	ECUM1H221JCN	C.CAPACITOR CH 50V 220P	1	
C6012,13	ECUM1H101JCN	C.CAPACITOR CH 50V 100P	2	
C6015	ECUM1H150JCN	C.CAPACITOR CH 50V 15P	1	
C6016	ECUM1H180JCN	C.CAPACITOR CH 50V 18P	1	
C6017	ECUM1H100DCN	C.CAPACITOR CH 50V 10P	1	
C6018	ECUM1H180JCN	C.CAPACITOR CH 50V 18P	1	
C6019,20	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	2	
C6021	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C6023	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C6024	VCEA0JEC471	E.CAPACITOR 6.3V 470U	1	
C6031	ECUM1H330JCN	C.CAPACITOR CH 50V 33P	1	
C6033	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C7302	ECEA1HKN2R2	E.CAPACITOR 50V 2.2U	1	
C7304	ECEA1HKN2R2	E.CAPACITOR 50V 2.2U	1	
C7308	ECUM1H181JCN	C.CAPACITOR CH 50V 180P	1	
C7309	ECUM1H152KBN	C.CAPACITOR CH 50V 1500P	1	
C7310	ECEA1CKA100	E.CAPACITOR 16V 10U	1	
C7311	ECEA1CKA101	E.CAPACITOR 16V 100U	1	
C7312	ECQB1H103JF	P.CAPACITOR 50V 0.01U	1	
C7313	ECQV1H104JM	P.CAPACITOR 50V 0.1U	1	
C7314,15	ECQB1H103JF	P.CAPACITOR 50V 0.01U	2	
C7320,21	ECEA1CKA100	E.CAPACITOR 16V 10U	2	
C7323-25	ECUM1H153KBM	C.CAPACITOR CH 50V 0.015U	3	
C7326	ECEA1CKN100	E.CAPACITOR 16V 10U	1	
C7328	ECEA1CKA470	E.CAPACITOR 16V 47U	1	
C7333	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C7337	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C7349	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C7353	ECEA1HKA2R2	E.CAPACITOR 50V 2.2U	1	
C7355,56	ECEA1HKA2R2	E.CAPACITOR 50V 2.2U	2	
C7357	ECEA1CKA470	E.CAPACITOR 16V 47U	1	
C7358	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C7359	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C7501	VCEA1HCB100	E.CAPACITOR 50V 10U	1	
C7502	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C7503	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C7505	ECUM1H120JCN	C.CAPACITOR CH 50V 12P	1	
C7603	ECUM1C224ZFN	C.CAPACITOR CH 16V 0.22U	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C7606	ECUM1H103ZFN	C. CAPACITOR CH 50V 0. 01U	1	
C7608	VCEA1HCB100	E. CAPACITOR 50V 10U	1	
C7609	ECUM1H104ZFN	C. CAPACITOR CH 50V 0. 1U	1	
C7611	VCEA0JCB101	E. CAPACITOR 6. 3V 100U	1	
C7612	ECUM1H103ZFN	C. CAPACITOR CH 50V 0. 01U	1	
C7613	VCEA0JCB101	E. CAPACITOR 6. 3V 100U	1	
C7704	VCEA0JCB101	E. CAPACITOR 6. 3V 100U	1	
C7705	ECUM1H104ZFN	C. CAPACITOR CH 50V 0. 1U	1	
C7706	ECUM1H102KBN	C. CAPACITOR CH 50V 1000P	1	
C7707	ECUM1H103ZFN	C. CAPACITOR CH 50V 0. 01U	1	
C7708	ECUM1H222KBN	C. CAPACITOR CH 50V 2200P	1	
C7709	ECUM1C105ZFN	C. CAPACITOR CH 16V 1U	1	
D1001	MA4051N-M	DIODE	1	
D1002	1SS254	DIODE	1	
D1003	MA4120N-M	DIODE	1	
D1004	1SS254	DIODE	1	
D1005	MA4051N-M	DIODE	1	
D1006	1SS254	DIODE	1	
D2501	MA723VT	DIODE	1	
D2502	1SS254	DIODE	1	
D4001	1SS254	DIODE	1	
D4501-03	1SS254	DIODE	3	
D6001-03	RB441P	DIODE	3	
D6004, 05	1SS254	DIODE	2	
D6006	SIR505S	DIODE	1	
D6007-10	1SS254	DIODE	4	
D7501	MA4180N	DIODE	1	
D7505	1SS254	DIODE	1	
D7601	MA4300N-M	DIODE	1	
DP7501	VSL0505	DISPLAY TUBE	1	
IC1001	PQ20VB2E	IC	1	
IC2501	AN3811NK	IC	1	
IC3001	TDA9735HV2	IC	1	
IC4501	BH7803K	IC	1	
IC6001	PNA4611M02VT	IR RECEIVER UNIT	1	
IC6002	PST993D	IC	1	
IC6004, 05	RPI354N	IC	2	
IC6007	MN101D02GMA	IC	1	
IC7301	TDA9840T	IC	1	
IC7302	TDA9821	IC	1	
IC7501	M35502AFP	IC	1	
⚠ IP1001, 02	UNH000300A	IC PROTECTOR	2	
⚠ IP1003	VSF0015A025	IC PROTECTOR	1	
⚠ IP1004	UNH000300A	IC PROTECTOR	1	
JK3001	VJJ0559	RCA PIN JACK (6P)	1	
K1002	ERJ6GMZ0R00	M. RESISTOR CH 1/10W 0	1	
K2001	ERJ6GMZ0R00	M. RESISTOR CH 1/10W 0	1	
K4001	ERJ6GMZ0R00	M. RESISTOR CH 1/10W 0	1	
K4004	ERJ6GMZ0R00	M. RESISTOR CH 1/10W 0	1	
L3002	VLQ0599J390	COIL 39UH	1	
L3003	VLQ0599J121	COIL 120UH	1	
L3004	VLQ0599J220	COIL 22UH	1	
L3005	VLQ0599J151	COIL 150UH	1	
L3006-11	VLQ0599J680	COIL 68UH	6	
L4001	VLQEL07F153J	COIL 15MH	1	
L4003	VLQ0599J121	COIL 120UH	1	
L7604, 05	VLQ0599J330	COIL 33UH	2	
L7701	VLQ0599J680	COIL 68UH	1	
LB4001	ERJ6GMZ0R00	M. RESISTOR CH 1/10W 0	1	
LB4004	ERJ6GMZ0R00	M. RESISTOR CH 1/10W 0	1	
LB6002	ERJ6GMZ0R00	M. RESISTOR CH 1/10W 0	1	
P1001	VJS3917A016W	CONNECTOR (FEMALE) 16P	1	
P2001	VJP3835A012	CONNECTOR (MALE) 12P	1	
P2501	VJS3537A009G	CONNECTOR (FEMALE) 9P	1	
P3001	VJS3537A016G	CONNECTOR (FEMALE) 16P	1	
P3002	VJS3478A005T	CONNECTOR (FEMALE) 5P	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
P4001	VJS3537A006G	CONNECTOR (FEMALE) 6P	1	
P4002	VJS3837A002	CONNECTOR (FEMALE) 2P	1	
P6002	VJS3837A002	CONNECTOR (FEMALE) 2P	1	
P6003	VJS3905	DEW SENSOR CONNECTOR	1	
PK7301	VJR0777B007W	CONNECTOR (MALE) 7P	1	
PK7302	VJR0777B006W	CONNECTOR (MALE) 6P	1	
Q1001	2SC3940A	TRANSISTOR	1	
Q1002, 03	2SD1996	TRANSISTOR	2	
Q1005	2SD1996	TRANSISTOR	1	
Q1009	2SD602A	TRANSISTOR	1	
Q3002	2SB709A	TRANSISTOR	1	
Q4002	MSD602-R	TRANSISTOR	1	
Q4003	2SB1321	TRANSISTOR	1	
Q4005	2SD1149	TRANSISTOR	1	
Q4006	2SD601A	TRANSISTOR	1	
Q4501	MSD601-R	TRANSISTOR-RESISTOR	1	
Q4502	2SA1515	TRANSISTOR	1	
Q4503	MSD1328-R	TRANSISTOR	1	
Q6001	PNB2301MBV	TRANSISTOR	1	
Q6002	PNB2301MAV	TRANSISTOR	1	
Q7301	MSD601-S	TRANSISTOR	1	
Q7701	2SB709A	TRANSISTOR	1	
QR1011	MUN2112	TRANSISTOR-RESISTOR	1	
QR3003, 04	MUN2213	TRANSISTOR-RESISTOR	2	
QR4004	MUN2111	TRANSISTOR-RESISTOR	1	
QR4501	MUN2212	TRANSISTOR-RESISTOR	1	
QR6001	MUN2211	TRANSISTOR-RESISTOR	1	
R1001	ERDS2TJ561	C. RESISTOR 1/4W 560	1	
R1002	ERDS2TJ103	C. RESISTOR 1/4W 10K	1	
R1004	ERJ6GMYJ182	M. RESISTOR CH 1/10W 1. 8K	1	
R1010	ERJ6GMYG683	M. RESISTOR CH 1/10W 68K	1	
R1011	ERJ6GMYG752	M. RESISTOR CH 1/10W 7. 5K	1	
R1012	ERJ6GMYG433	M. RESISTOR CH 1/10W 43K	1	
R1013, 14	ERJ6GMYJ562	M. RESISTOR CH 1/10W 5. 6K	2	
R1018, 19	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	2	
R1022	ERDS2TJ561	C. RESISTOR 1/4W 560	1	
R2001	ERJ6GMYJ392	M. RESISTOR CH 1/10W 3. 9K	1	
R2002	ERJ6GMYJ222	M. RESISTOR CH 1/10W 2. 2K	1	
R2003	ERJ6GMYJ273	M. RESISTOR CH 1/10W 27K	1	
R2004	ERJ6GMYG393	M. RESISTOR CH 1/10W 39K	1	
R2501	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	1	
R2502, 03	ERDS2TJ330	C. RESISTOR 1/4W 33	2	
R2504	ERDS2TJ1R2	C. RESISTOR 1/4W 1. 2	1	
R2505	ERDS2TJ331	C. RESISTOR 1/4W 330	1	
R2506	ERDS2TJ1R5	C. RESISTOR 1/4W 1. 5	1	
R2507	ERDS2TJ330	C. RESISTOR 1/4W 33	1	
R3001	ERDS2TJ471	C. RESISTOR 1/4W 470	1	
R3003	ERJ6GMYJ223	M. RESISTOR CH 1/10W 22K	1	
R3004	ERJ6GMYJ471	M. RESISTOR CH 1/10W 470	1	
R3005	ERJ6GMYJ331	M. RESISTOR CH 1/10W 330	1	
R3007	ERJ6GMYJ750	M. RESISTOR CH 1/10W 75	1	
R3008	ERJ6GMYJ222	M. RESISTOR CH 1/10W 2. 2K	1	
R3009	ERJ6GMYJ750	M. RESISTOR CH 1/10W 75	1	
R3011	ERJ6GMYJ102	M. RESISTOR CH 1/10W 1K	1	
R3012	ERJ6GMYJ221	M. RESISTOR CH 1/10W 220	1	
R3013	ERJ6GMYJ152	M. RESISTOR CH 1/10W 1. 5K	1	
R3017	ERJ6GMYJ333	M. RESISTOR CH 1/10W 33K	1	
R3018	ERJ6GMYG301	M. RESISTOR CH 1/10W 300	1	
R3019	ERJ6GMYJ472	M. RESISTOR CH 1/10W 4. 7K	1	
R3021	ERJ6GMYJ183	M. RESISTOR CH 1/10W 18K	1	
R3022	ERJ6GMYJ182	M. RESISTOR CH 1/10W 1. 8K	1	
R3023	ERJ6GMYJ272	M. RESISTOR CH 1/10W 2. 7K	1	
R3024	ERJ6GMYJ152	M. RESISTOR CH 1/10W 1. 5K	1	
R3025	ERJ6GMYJ473	M. RESISTOR CH 1/10W 47K	1	
R3026	ERJ6GMYJ684	M. RESISTOR CH 1/10W 680K	1	
R3027	ERJ6GMYJ224	M. RESISTOR CH 1/10W 220K	1	
R3028	ERJ6GMYJ152	M. RESISTOR CH 1/10W 1. 5K	1	
R3029	ERJ6GMYJ331	M. RESISTOR CH 1/10W 330	1	
R3030, 31	ERJ6GMYJ102	M. RESISTOR CH 1/10W 1K	2	
R3032	ERJ6GMYJ271	M. RESISTOR CH 1/10W 270	1	
R3033, 34	ERJ6GMZ0R00	M. RESISTOR CH 1/10W 0	2	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R3037	ERJ6GMYJ822	M. RESISTOR CH 1/10W 8.2K	1	
R3039	ERJ6GMYJ221	M. RESISTOR CH 1/10W 220	1	
R3040	ERJ6GMYJ102	M. RESISTOR CH 1/10W 1K	1	
R3043	ERJ6GMYJ821	M. RESISTOR CH 1/10W 820	1	
R3055	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	1	
R4001	ERJ6GMYJ334	M. RESISTOR CH 1/10W 330K	1	
R4002	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	1	
R4003	ERJ6GMYJ241	M. RESISTOR CH 1/10W 240	1	
R4004	ERJ6GMYJ273	M. RESISTOR CH 1/10W 27K	1	
R4005	ERJ6GMYJ473	M. RESISTOR CH 1/10W 47K	1	
R4006	ERJ6GMYJ163	M. RESISTOR CH 1/10W 16K	1	
R4007	ERJ6GMYJ102	M. RESISTOR CH 1/10W 1K	1	
R4008	ERJ6GMYJ391	M. RESISTOR CH 1/10W 390	1	
R4009	ERJ6GMYJ331	M. RESISTOR CH 1/10W 330	1	
R4010	ERJ6GMZ0R00	M. RESISTOR CH 1/10W 0	1	
R4011	ERJ6GMYK225	M. RESISTOR CH 1/10W 2.2M	1	
R4012	ERJ6GMYJ393	M. RESISTOR CH 1/10W 39K	1	
R4013	ERJ6GMYJ183	M. RESISTOR CH 1/10W 18K	1	
R4014	ERJ6GMYJ472	M. RESISTOR CH 1/10W 4.7K	1	
R4015	ERJ6GMYJ222	M. RESISTOR CH 1/10W 2.2K	1	
R4016	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	1	
R4017	ERJ6GMZ0R00	M. RESISTOR CH 1/10W 0	1	
R4019, 20	ERJ6GMZ0R00	M. RESISTOR CH 1/10W 0	2	
R4023, 24	ERJ6GMYJ332	M. RESISTOR CH 1/10W 3.3K	2	
R4025	ERJ6GMYJ222	M. RESISTOR CH 1/10W 2.2K	1	
R4027	ERJ6GMYJ472	M. RESISTOR CH 1/10W 4.7K	1	
R4030	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	1	
R4031	ERJ6GMYJ223	M. RESISTOR CH 1/10W 22K	1	
R4032, 33	ERJ6GMYJ822	M. RESISTOR CH 1/10W 8.2K	2	
R4035	ERJ6GMYJ183	M. RESISTOR CH 1/10W 18K	1	
R4037	ERJ6GMYJ471	M. RESISTOR CH 1/10W 470	1	
R4063	ERJ6GMYJ223	M. RESISTOR CH 1/10W 22K	1	
R4501, 02	ERJ6GMYJ513	M. RESISTOR CH 1/10W 51K	2	
R4503, 04	ERJ6GMYJ101	M. RESISTOR CH 1/10W 100	2	
R4505	ERJ6GMYJ332	M. RESISTOR CH 1/10W 3.3K	1	
R4506, 07	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	2	
R4508	ERDS2TJ471	C. RESISTOR 1/4W 470	1	
R4510	ERDS2TJ471	C. RESISTOR 1/4W 470	1	
R4513-16	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	4	
R4517	ERJ6GMYJ393	M. RESISTOR CH 1/10W 39K	1	
R4518	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	1	
R4519	ERJ6GMYJ393	M. RESISTOR CH 1/10W 39K	1	
R4520	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	1	
R4521	ERJ6GMYJ222	M. RESISTOR CH 1/10W 2.2K	1	
R4522	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	1	
R4523	ERJ6GMYJ393	M. RESISTOR CH 1/10W 39K	1	
R4524	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	1	
R4527, 28	ERJ6RBD273	M. RESISTOR CH 1/10W 27K	2	
R4529	ERJ6GMYJ393	M. RESISTOR CH 1/10W 39K	1	
R4530	ERJ6GMYK225	M. RESISTOR CH 1/10W 2.2M	1	
R6001	ERJ6GMZ0R00	M. RESISTOR CH 1/10W 0	1	
R6002	ERJ6GMYJ393	M. RESISTOR CH 1/10W 39K	1	
R6003	ERJ6GMYJ273	M. RESISTOR CH 1/10W 27K	1	
R6004	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	1	
R6005	ERJ6GMYJ221	M. RESISTOR CH 1/10W 220	1	
R6006, 07	ERJ6GMYJ273	M. RESISTOR CH 1/10W 27K	2	
R6008	ERDS2TJ181	C. RESISTOR 1/4W 180	1	
R6009	ERJ6GMYJ332	M. RESISTOR CH 1/10W 3.3K	1	
R6010, 11	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	2	
R6014	ERJ6GMYJ332	M. RESISTOR CH 1/10W 3.3K	1	
R6015	ERJ6GMYJ472	M. RESISTOR CH 1/10W 4.7K	1	
R6017, 18	ERJ6GMYJ332	M. RESISTOR CH 1/10W 3.3K	2	
R6020	ERJ6GMZ0R00	M. RESISTOR CH 1/10W 0	1	
R6021	ERJ6GMYJ102	M. RESISTOR CH 1/10W 1K	1	
R6023, 24	ERJ6GMYJ221	M. RESISTOR CH 1/10W 220	2	
R6027	ERJ6GMYJ221	M. RESISTOR CH 1/10W 220	1	
R6028	ERJ6GMYJ222	M. RESISTOR CH 1/10W 2.2K	1	
R6029	ERJ6GMYJ332	M. RESISTOR CH 1/10W 3.3K	1	
R6030	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	1	
R6031	ERJ6GMYJ105	M. RESISTOR CH 1/10W 1M	1	
R6033	ERJ6GMYJ101	M. RESISTOR CH 1/10W 100	1	
R6035	ERJ6GMYJ221	M. RESISTOR CH 1/10W 220	1	
R6041	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	1	
R6043	ERJ6GMYJ244	M. RESISTOR CH 1/10W 240K	1	
R6044	ERDS2TJ121	C. RESISTOR 1/4W 120	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R6045	ERJ6GMYJ223	M. RESISTOR CH 1/10W 22K	1	
R6052, 53	ERJ6GMZ0R00	M. RESISTOR CH 1/10W 0	2	
R6055	ERJ6GMYJ334	M. RESISTOR CH 1/10W 330K	1	
R7302	ERJ3GEYG113	M. RESISTOR CH 1/16W 11K	1	
R7303	ERJ3GEYG182	M. RESISTOR CH 1/16W 1.8K	1	
R7304	ERJ6GEYG512	M. RESISTOR CH 1/10W 5.1K	1	
R7305	ERJ3GEYG821	M. RESISTOR CH 1/16W 820	1	
R7307	ERJ3GEYG821	M. RESISTOR CH 1/16W 820	1	
R7311	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	1	
R7313	ERJ3GEYJ273	M. RESISTOR CH 1/16W 27K	1	
R7323	ERJ3GEYG562	M. RESISTOR CH 1/16W 5.6K	1	
R7324, 25	ERJ3GEYG471	M. RESISTOR CH 1/16W 470	2	
R7326	ERJ3GEYG113	M. RESISTOR CH 1/16W 11K	1	
R7327	ERJ6GEYJ103	M. RESISTOR CH 1/10W 10K	1	
R7329	ERJ3GEYG822	M. RESISTOR CH 1/16W 8.2K	1	
R7330	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	1	
R7331	ERJ3GEYG752	M. RESISTOR CH 1/16W 7.5K	1	
R7337, 38	ERJ3GEYJ471	M. RESISTOR CH 1/16W 470	2	
R7345	ERJ3GEYG182	M. RESISTOR CH 1/16W 1.8K	1	
R7353, 54	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	2	
R7364	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1	
R7365	ERJ3GEYJ223	M. RESISTOR CH 1/16W 22K	1	
R7367	ERJ3GEYJ182	M. RESISTOR CH 1/16W 1.8K	1	
R7368	ERJ3GEYJ272	M. RESISTOR CH 1/16W 2.7K	1	
R7369	ERJ6GEY0R00	M. RESISTOR CH 1/10W 0	1	
R7370, 71	ERJ6GEYJ101	M. RESISTOR CH 1/10W 100	2	
R7504	ERJ6GMYJ221	M. RESISTOR CH 1/10W 220	1	
R7505	ERJ6GMYG363	M. RESISTOR CH 1/10W 36K	1	
R7507, 08	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	2	
R7509	ERJ6GMYG182	M. RESISTOR CH 1/10W 1.8K	1	
R7510	ERDS2TJ180	C. RESISTOR 1/4W 18	1	
R7512, 13	ERJ6GMYG123	M. RESISTOR CH 1/10W 12K	2	
R7514	ERJ6GMYJ101	M. RESISTOR CH 1/10W 100	1	
R7516	ERDS2TJ102	C. RESISTOR 1/4W 1K	1	
R7518	ERDS2TJ150	C. RESISTOR 1/4W 15	1	
R7519	ERJ6GMYG472	M. RESISTOR CH 1/10W 4.7K	1	
R7520	ERJ6GMYG392	M. RESISTOR CH 1/10W 3.9K	1	
R7521	ERJ6GMYG222	M. RESISTOR CH 1/10W 2.2K	1	
R7522, 23	ERJ6GMYG332	M. RESISTOR CH 1/10W 3.3K	2	
R7524	ERJ6GMYG472	M. RESISTOR CH 1/10W 4.7K	1	
R7526	ERJ6GMYG822	M. RESISTOR CH 1/10W 8.2K	1	
R7529	ERJ6GMYJ221	M. RESISTOR CH 1/10W 220	1	
R7604	ERJ6GMYJ102	M. RESISTOR CH 1/10W 1K	1	
R7605, 06	ERG2SJ331	M. RESISTOR 2W 330	2	
R7608	ERJ6GMYJ102	M. RESISTOR CH 1/10W 1K	1	
R7611-14	ERJ6GMZ0R00	M. RESISTOR CH 1/10W 0	4	
R7704	ERJ6GMYJ102	M. RESISTOR CH 1/10W 1K	1	
R7705, 06	ERJ6GMYJ101	M. RESISTOR CH 1/10W 100	2	
R7708	ERJ6GMYJ222	M. RESISTOR CH 1/10W 2.2K	1	
S6001	VES0834	S-TAB SWITCH	1	
S6002	VSS0520	MODE SELECT SWITCH	1	
S7501, 02	EVQ11L07B	SWITCH	2	
S7505-08	EVQ11L07B	SWITCH	4	
T4002	VLT0895	TRANSFORMER	1	
T7301	EQR7QG028P	TRANSFORMER	1	
⚠ TU7601	ENG57806G1	TUNER	1	
VR7303	EVNCBAA00B23	V. RESISTOR	1	
X3001	VSX0162	CRYSTAL OSCILLATOR	1	
X3002	VSX0160	CRYSTAL OSCILLATOR	1	
X6001	VSX0660	CRYSTAL OSCILLATOR	1	
X6002	VSX0365	CRYSTAL OSCILLATOR	1	
X7301	EFCS5R5MS5	FILTER	1	
X7302	EFCS5R74MS5B	CRYSTAL OSCILLATOR	1	
X7305	VSX0648	CRYSTAL OSCILLATOR	1	
		MISCELLANEOUS		
	VXQ0648	FIP HOLDER	1	
	VMP4894	SUPPORT ANGLE	1	FOR DECODER C.B.A.

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
■	VEP06C93B	MAIN C.B.A.		(RTL)
				NV-HD630EA
B6001	CR2354-1GUF	LITHIUM BATTERY	1	
C1001	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C1002	VCEA0JCB220	E.CAPACITOR 6.3V 22U	1	
C1003	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C1004	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C1005	VCEA1CCB470	E.CAPACITOR 16V 47U	1	
C1007	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C1008	VCEA0JBS470	E.CAPACITOR 6.3V 47U	1	
C1009	VCEA0JBS101	E.CAPACITOR 6.3V 100U	1	
C1011	VCEA1ECB470	E.CAPACITOR 25V 47U	1	
C1014	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C1015	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C2001	ECEA1CKN220	E.CAPACITOR 16V 22U	1	
C2006	ECUM1C474KBN	C.CAPACITOR CH 16V 0.47U	1	
C2008	ECUM1H392KBN	C.CAPACITOR CH 50V 3900P	1	
C2010	VCEA1HCB4R7	E.CAPACITOR 50V 4.7U	1	
C2011	ECUM1H222KBN	C.CAPACITOR CH 50V 2200P	1	
C2012	ECUM1H563KBN	C.CAPACITOR CH 50V 0.056U	1	
C2013	VCEA1HCB3R3	E.CAPACITOR 50V 3.3U	1	
C2501, 02	ECUM1H563KBN	C.CAPACITOR CH 50V 0.056U	2	
C2503	ECEA1VKN4R7	E.CAPACITOR 35V 4.7U	1	
C2504	VCEA1ECB470	E.CAPACITOR 25V 47U	1	
C2505	ECEA1VKN4R7	E.CAPACITOR 35V 4.7U	1	
C2506	VCEA0JCB221	E.CAPACITOR 6.3V 220U	1	
C2507	ECUM1H473ZFN	C.CAPACITOR CH 50V 0.047U	1	
C2508	ECUM1C683KBN	C.CAPACITOR CH 16V 0.068U	1	
C2509-11	ECUM1C154KBN	C.CAPACITOR CH 16V 0.15U	3	
C2512	ECEA1VKN4R7	E.CAPACITOR 35V 4.7U	1	
C3001	VCEA1CCB470	E.CAPACITOR 16V 47U	1	
C3003	VCEA0JEC471	E.CAPACITOR 6.3V 470U	1	
C3004	ECUM1H560JCN	C.CAPACITOR CH 50V 56P	1	
C3005	ECUM1E104KBN	C.CAPACITOR CH 25V 0.1U	1	
C3006	ECUM1H220JCN	C.CAPACITOR CH 50V 22P	1	
C3007	ECUM1H821JCN	C.CAPACITOR CH 50V 820P	1	
C3008	VCEA1HCB010	E.CAPACITOR 50V 1U	1	
C3009	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C3010	ECUM1H680JCN	C.CAPACITOR CH 50V 68P	1	
C3011	ECUM1H120JCN	C.CAPACITOR CH 50V 12P	1	
C3012	ECUM1E104KBN	C.CAPACITOR CH 25V 0.1U	1	
C3013	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3014	ECUM1E104KBN	C.CAPACITOR CH 25V 0.1U	1	
C3015	VCEA0JCB221	E.CAPACITOR 6.3V 220U	1	
C3016	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C3017	VCEA1HCB010	E.CAPACITOR 50V 1U	1	
C3018	ECUM1H103KBN	C.CAPACITOR CH 50V 0.01U	1	
C3019	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C3020	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C3021	ECUM1E104KBN	C.CAPACITOR CH 25V 0.1U	1	
C3022	ECUM1H222KBN	C.CAPACITOR CH 50V 2200P	1	
C3024	ECUM1H221JCN	C.CAPACITOR CH 50V 220P	1	
C3026	VCEA1HCB3R3	E.CAPACITOR 50V 3.3U	1	
C3028	VCEA0JCB470	E.CAPACITOR 6.3V 47U	1	
C3029	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C3030	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C3031	VCEA0JCB220	E.CAPACITOR 6.3V 22U	1	
C3032	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3033	VCEA1HCBR47	E.CAPACITOR 50V 0.47U	1	
C3034	ECUM1H222KBN	C.CAPACITOR CH 50V 2200P	1	
C3035	VCEA1ECB4R7	E.CAPACITOR 25V 4.7U	1	
C3036	ECUM1H560JCN	C.CAPACITOR CH 50V 56P	1	
C3037	VCEA1ECB4R7	E.CAPACITOR 25V 4.7U	1	
C3038	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C3039	VCEA0JCB221	E.CAPACITOR 6.3V 220U	1	
C3040	VCEA1ECB4R7	E.CAPACITOR 25V 4.7U	1	
C3041	VCEA0JCB221	E.CAPACITOR 6.3V 220U	1	
C3042	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C3043	VCEA0JCB220	E.CAPACITOR 6.3V 22U	1	
C3044	ECUM1E563KBN	C.CAPACITOR CH 25V 0.056U	1	
C3045	VCEA1CCB100	E.CAPACITOR 16V 10U	1	
C3046	ECUM1H561JCN	C.CAPACITOR CH 50V 560P	1	
C3047	ECUM1H221JCN	C.CAPACITOR CH 50V 220P	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C3048, 49	ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	2	
C3051, 52	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C4001	ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C4002	ECUM1H822KBN	C.CAPACITOR CH 50V 8200P	1	
C4003	VCEA0JCB220	E.CAPACITOR 6.3V 22U	1	
C4004	ECUM1H182JCN	C.CAPACITOR CH 50V 1800P	1	
C4005	ECUM1H272KBN	C.CAPACITOR CH 50V 2700P	1	
C4006	VCEA1HCB010	E.CAPACITOR 50V 1U	1	
C4007	VCEA1ECB4R7	E.CAPACITOR 25V 4.7U	1	
C4008	ECUM1H822KBN	C.CAPACITOR CH 50V 8200P	1	
C4009	ECUM1E273KBN	C.CAPACITOR CH 25V 0.027U	1	
C4010	ECUM1H822KBN	C.CAPACITOR CH 50V 8200P	1	
C4011	VCEA1CCB100	E.CAPACITOR 16V 10U	1	
C4012	VCEA0JCB470	E.CAPACITOR 6.3V 47U	1	
C4013	VCEA0JCB220	E.CAPACITOR 6.3V 22U	1	
C4014, 15	VCEA1HCBR33	E.CAPACITOR 50V 0.33U	2	
C4016	ECKF1H102KB	C.CAPACITOR 50V 1000P	1	
C4018	ECUM1H223KBN	C.CAPACITOR CH 50V 0.022U	1	
C4020	VCEA0JCB221	E.CAPACITOR 6.3V 220U	1	
C4021	ECQB1H223JF	P.CAPACITOR 50V 0.022U	1	
C4023	ECUM1H152KBN	C.CAPACITOR CH 50V 1500P	1	
C4028	VCEA0JCB470	E.CAPACITOR 6.3V 47U	1	
C4037	VCEA1HCBR33	E.CAPACITOR 50V 0.33U	1	
C4042	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C4501	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C4502	ECA1CAK100X	E.CAPACITOR 16V 10U	1	
C4503	ECQB1H223JF	P.CAPACITOR 50V 0.022U	1	
C4504	ECQB1H472JF	P.CAPACITOR 50V 4700P	1	
C4506	VCEA1HCB4R7	E.CAPACITOR 50V 4.7U	1	
C4509, 10	ECA0JAK101X	E.CAPACITOR 6.3V 100U	2	
C4511	ECA1HAK4R7	E.CAPACITOR 50V 4.7U	1	
C4512	VCEA0JAW330	E.CAPACITOR 6.3V 33U	1	
C4513	ECA0JAK101X	E.CAPACITOR 6.3V 100U	1	
C4514	ECUM1H223KBN	C.CAPACITOR CH 50V 0.022U	1	
C4515	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C4516	VCEA0JAW330	E.CAPACITOR 6.3V 33U	1	
C4517	ECA1CAK100X	E.CAPACITOR 16V 10U	1	
C4518	ECQB1H223JF	P.CAPACITOR 50V 0.022U	1	
C4519	ECQB1H472JF	P.CAPACITOR 50V 4700P	1	
C4520	VCEA0JCB470	E.CAPACITOR 6.3V 47U	1	
C4521, 22	ECUM1H152KBN	C.CAPACITOR CH 50V 1500P	2	
C6002	ECUM1H221JCN	C.CAPACITOR CH 50V 220P	1	
C6003	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C6006, 07	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	2	
C6009	ECUM1H221JCN	C.CAPACITOR CH 50V 220P	1	
C6012, 13	ECUM1H101JCN	C.CAPACITOR CH 50V 100P	2	
C6015	ECUM1H150JCN	C.CAPACITOR CH 50V 15P	1	
C6016	ECUM1H180JCN	C.CAPACITOR CH 50V 18P	1	
C6017	ECUM1H100DCN	C.CAPACITOR CH 50V 10P	1	
C6018	ECUM1H180JCN	C.CAPACITOR CH 50V 18P	1	
C6019, 20	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	2	
C6021	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C6023	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C6024	VCEA0JEC471	E.CAPACITOR 6.3V 470U	1	
C6031	ECUM1H330JCN	C.CAPACITOR CH 50V 33P	1	
C6033	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C7301	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C7302	VCEA0JAW101	E.CAPACITOR 6.3V 100U	1	
C7303	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C7304	VCEA0JAW101	E.CAPACITOR 6.3V 100U	1	
C7305, 06	ECUX1H330JCV	C.CAPACITOR CH 50V 33P	2	
C7307	ECUX1H470JCV	C.CAPACITOR CH 50V 47P	1	
C7308	ECEA1HKA2R2	E.CAPACITOR 50V 2.2U	1	
C7311	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
C7312, 13	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	2	
C7315	ECUM1E104KBN	C.CAPACITOR CH 25V 0.1U	1	
C7316	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C7317	VCEA1CAW100	E.CAPACITOR 16V 10U	1	
C7318	VCEA0JAW470	E.CAPACITOR 6.3V 47U	1	
C7319, 20	VCEA1CAW100	E.CAPACITOR 16V 10U	2	
C7321	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C7322, 23	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	2	
C7324-26	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	3	
C7327	ECUM1C334KBN	C.CAPACITOR CH 16V 0.33U	1	
C7328	ECUM1E333KBN	C.CAPACITOR CH 25V 0.033U	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C7329	ECUX1H150JCV	C.CAPACITOR CH 50V 15P	1	
C7330	ECUX1H390JCV	C.CAPACITOR CH 50V 39P	1	
C7501	VCEA1HCB100	E.CAPACITOR 50V 10U	1	
C7502	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C7503	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C7505	ECUM1H120JCN	C.CAPACITOR CH 50V 12P	1	
C7603	ECUM1C224ZFN	C.CAPACITOR CH 16V 0.22U	1	
C7606	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C7608	VCEA1HCB100	E.CAPACITOR 50V 10U	1	
C7609	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C7611	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C7612	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C7613	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C7704	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C7705	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C7706	ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C7707	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C7708	ECUM1H222KBN	C.CAPACITOR CH 50V 2200P	1	
C7709	ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
D1001	MA4051N-M	DIODE	1	
D1002	1SS254	DIODE	1	
D1003	MA4120N-M	DIODE	1	
D1004	1SS254	DIODE	1	
D1005	MA4051N-M	DIODE	1	
D1006	1SS254	DIODE	1	
D2501	MA723VT	DIODE	1	
D2502	1SS254	DIODE	1	
D4001	1SS254	DIODE	1	
D4501-03	1SS254	DIODE	3	
D6001-03	RB441P	DIODE	3	
D6004, 05	1SS254	DIODE	2	
D6006	SIR505S	DIODE	1	
D6007-10	1SS254	DIODE	4	
D7302	BB135	DIODE	1	
D7501	MA4180N	DIODE	1	
D7505	1SS254	DIODE	1	
D7601	MA4300N-M	DIODE	1	
DP7501	VSL0505	DISPLAY TUBE	1	
FL7301	VLF0633	FILTER	1	
IC1001	PQ20VB2E	IC	1	
IC2501	AN3811NK	IC	1	
IC3001	TDA9735HV2	IC	1	
IC4501	BH7803K	IC	1	
IC6001	PNA4611M02VT	IR RECEIVER UNIT	1	
IC6002	PST993D	IC	1	
IC6004, 05	RPI354N	IC	2	
IC6007	MN101D02GMA	IC	1	
IC7301	TDA9874H	IC	1	
IC7302	PST7043	IC	1	
IC7501	M35502AFP	IC	1	
⚠ IP1001, 02	UNH000300A	IC PROTECTOR	2	
⚠ IP1003	VSF0015A025	IC PROTECTOR	1	
⚠ IP1004	UNH000300A	IC PROTECTOR	1	
JK3001	VJJ0559	RCA PIN JACK (6P)	1	
K1002	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
K2001	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
K4001	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
K4004	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
K7301, 02	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	2	
K7304	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	
K7602	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
L3002	VLQ0599J390	COIL 39UH	1	
L3003	VLQ0599J121	COIL 120UH	1	
L3004	VLQ0599J220	COIL 22UH	1	
L3005	VLQ0599J151	COIL 150UH	1	
L3006-11	VLQ0599J680	COIL 68UH	6	
L4001	VLQEL07F153J	COIL 15MH	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
L4003	VLQ0599J121	COIL 120UH	1	
L7301	VLQ0599J3R3	COIL 3.3UH	1	
L7302	VLQ0599J1R0	COIL 1UH	1	
L7604, 05	VLQ0599J330	COIL 33UH	2	
L7607	VLQ0599J100	COIL 10UH	1	
L7701	VLQ0599J680	COIL 68UH	1	
LB4001	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
LB4004	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
LB6002	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
LB7301-04	VLP0150	COIL	4	
P1001	VJS3917A016W	CONNECTOR (FEMALE) 16P	1	
P2001	VJP3835A012	CONNECTOR (MALE) 12P	1	
P2501	VJS3537A009G	CONNECTOR (FEMALE) 9P	1	
P3001	VJS3537A016G	CONNECTOR (FEMALE) 16P	1	
P3002	VJS3478A005T	CONNECTOR (FEMALE) 5P	1	
P4001	VJS3537A006G	CONNECTOR (FEMALE) 6P	1	
P4002	VJS3837A002	CONNECTOR (FEMALE) 2P	1	
P6002	VJS3837A002	CONNECTOR (FEMALE) 2P	1	
P6003	VJS3905	DEW SENSOR CONNECTOR	1	
PK7301	VJR0777B007W	CONNECTOR (MALE) 7P	1	
PK7302	VJR0777B006W	CONNECTOR (MALE) 6P	1	
Q1001	2SC3940A	TRANSISTOR	1	
Q1002, 03	2SD1996	TRANSISTOR	2	
Q1005	2SD1996	TRANSISTOR	1	
Q1009	2SD602A	TRANSISTOR	1	
Q3002	2SB709A	TRANSISTOR	1	
Q4002	MSD602-R	TRANSISTOR	1	
Q4003	2SB1321	TRANSISTOR	1	
Q4005	2SD1149	TRANSISTOR	1	
Q4006	2SD601A	TRANSISTOR	1	
Q4501	MSD601-R	TRANSISTOR-RESISTOR	1	
Q4502	2SA1515	TRANSISTOR	1	
Q4503	MSD1328-R	TRANSISTOR	1	
Q6001	PNB2301MBV	TRANSISTOR	1	
Q6002	PNB2301MAV	TRANSISTOR	1	
Q7701	2SB709A	TRANSISTOR	1	
QR1011	MUN2112	TRANSISTOR-RESISTOR	1	
QR3003, 04	MUN2213	TRANSISTOR-RESISTOR	2	
QR4004	MUN2111	TRANSISTOR-RESISTOR	1	
QR4501	MUN2212	TRANSISTOR-RESISTOR	1	
QR6001	MUN2211	TRANSISTOR-RESISTOR	1	
R1001	ERDS2TJ561	C.RESISTOR 1/4W 560	1	
R1002	ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R1004	ERJ6GMYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R1010	ERJ6GMYG683	M.RESISTOR CH 1/10W 68K	1	
R1011	ERJ6GMYG752	M.RESISTOR CH 1/10W 7.5K	1	
R1012	ERJ6GMYG433	M.RESISTOR CH 1/10W 43K	1	
R1013, 14	ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	2	
R1018, 19	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	2	
R1022	ERDS2TJ561	C.RESISTOR 1/4W 560	1	
R2001	ERJ6GMYJ392	M.RESISTOR CH 1/10W 3.9K	1	
R2002	ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R2003	ERJ6GMYJ273	M.RESISTOR CH 1/10W 27K	1	
R2004	ERJ6GMYG393	M.RESISTOR CH 1/10W 39K	1	
R2501	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R2502, 03	ERDS2TJ330	C.RESISTOR 1/4W 33	2	
R2504	ERDS2TJ1R2	C.RESISTOR 1/4W 1.2	1	
R2505	ERDS2TJ331	C.RESISTOR 1/4W 330	1	
R2506	ERDS2TJ1R5	C.RESISTOR 1/4W 1.5	1	
R2507	ERDS2TJ330	C.RESISTOR 1/4W 33	1	
R3001	ERDS2TJ471	C.RESISTOR 1/4W 470	1	
R3003	ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R3004	ERJ6GMYJ471	M.RESISTOR CH 1/10W 470	1	
R3005	ERJ6GMYJ331	M.RESISTOR CH 1/10W 330	1	
R3007	ERJ6GMYJ750	M.RESISTOR CH 1/10W 75	1	
R3008	ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R3009	ERJ6GMYJ750	M.RESISTOR CH 1/10W 75	1	
R3011	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R3012	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R3013	ERJ6GMYJ152	M. RESISTOR CH 1/10W 1.5K	1	
R3017	ERJ6GMYJ333	M. RESISTOR CH 1/10W 33K	1	
R3018	ERJ6GMYG301	M. RESISTOR CH 1/10W 300	1	
R3019	ERJ6GMYJ472	M. RESISTOR CH 1/10W 4.7K	1	
R3021	ERJ6GMYJ183	M. RESISTOR CH 1/10W 18K	1	
R3022	ERJ6GMYJ182	M. RESISTOR CH 1/10W 1.8K	1	
R3023	ERJ6GMYJ272	M. RESISTOR CH 1/10W 2.7K	1	
R3024	ERJ6GMYJ152	M. RESISTOR CH 1/10W 1.5K	1	
R3025	ERJ6GMYJ473	M. RESISTOR CH 1/10W 47K	1	
R3026	ERJ6GMYJ684	M. RESISTOR CH 1/10W 680K	1	
R3027	ERJ6GMYJ224	M. RESISTOR CH 1/10W 220K	1	
R3028	ERJ6GMYJ152	M. RESISTOR CH 1/10W 1.5K	1	
R3029	ERJ6GMYJ331	M. RESISTOR CH 1/10W 330	1	
R3030, 31	ERJ6GMYJ102	M. RESISTOR CH 1/10W 1K	2	
R3032	ERJ6GMYJ271	M. RESISTOR CH 1/10W 270	1	
R3033, 34	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	2	
R3037	ERJ6GMYJ822	M. RESISTOR CH 1/10W 8.2K	1	
R3039	ERJ6GMYJ221	M. RESISTOR CH 1/10W 220	1	
R3040	ERJ6GMYJ102	M. RESISTOR CH 1/10W 1K	1	
R3043	ERJ6GMYJ821	M. RESISTOR CH 1/10W 820	1	
R3055	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	1	
R4001	ERJ6GMYJ334	M. RESISTOR CH 1/10W 330K	1	
R4002	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	1	
R4003	ERJ6GMYJ241	M. RESISTOR CH 1/10W 240	1	
R4004	ERJ6GMYJ273	M. RESISTOR CH 1/10W 27K	1	
R4005	ERJ6GMYJ473	M. RESISTOR CH 1/10W 47K	1	
R4006	ERJ6GMYJ163	M. RESISTOR CH 1/10W 16K	1	
R4007	ERJ6GMYJ102	M. RESISTOR CH 1/10W 1K	1	
R4008	ERJ6GMYJ391	M. RESISTOR CH 1/10W 390	1	
R4009	ERJ6GMYJ331	M. RESISTOR CH 1/10W 330	1	
R4010	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	1	
R4011	ERJ6GMYK225	M. RESISTOR CH 1/10W 2.2M	1	
R4012	ERJ6GMYJ393	M. RESISTOR CH 1/10W 39K	1	
R4013	ERJ6GMYJ183	M. RESISTOR CH 1/10W 18K	1	
R4014	ERJ6GMYJ472	M. RESISTOR CH 1/10W 4.7K	1	
R4015	ERJ6GMYJ222	M. RESISTOR CH 1/10W 2.2K	1	
R4016	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	1	
R4017	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	1	
R4019, 20	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	2	
R4023, 24	ERJ6GMYJ332	M. RESISTOR CH 1/10W 3.3K	2	
R4025	ERJ6GMYJ222	M. RESISTOR CH 1/10W 2.2K	1	
R4027	ERJ6GMYJ472	M. RESISTOR CH 1/10W 4.7K	1	
R4030	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	1	
R4031	ERJ6GMYJ223	M. RESISTOR CH 1/10W 22K	1	
R4032, 33	ERJ6GMYJ822	M. RESISTOR CH 1/10W 8.2K	2	
R4035	ERJ6GMYJ183	M. RESISTOR CH 1/10W 18K	1	
R4037	ERJ6GMYJ471	M. RESISTOR CH 1/10W 470	1	
R4063	ERJ6GMYJ223	M. RESISTOR CH 1/10W 22K	1	
R4501, 02	ERJ6GMYJ513	M. RESISTOR CH 1/10W 51K	2	
R4503, 04	ERJ6GMYJ101	M. RESISTOR CH 1/10W 100	2	
R4505	ERJ6GMYJ332	M. RESISTOR CH 1/10W 3.3K	1	
R4506, 07	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	2	
R4508	ERDS2TJ471	C. RESISTOR 1/4W 470	1	
R4510	ERDS2TJ471	C. RESISTOR 1/4W 470	1	
R4513-16	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	4	
R4517	ERJ6GMYJ393	M. RESISTOR CH 1/10W 39K	1	
R4518	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	1	
R4519	ERJ6GMYJ393	M. RESISTOR CH 1/10W 39K	1	
R4520	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	1	
R4521	ERJ6GMYJ222	M. RESISTOR CH 1/10W 2.2K	1	
R4522	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	1	
R4523	ERJ6GMYJ393	M. RESISTOR CH 1/10W 39K	1	
R4524	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	1	
R4527, 28	ERJ6RBD273	M. RESISTOR CH 1/10W 27K	2	
R4529	ERJ6GMYJ393	M. RESISTOR CH 1/10W 39K	1	
R4530	ERJ6GMYK225	M. RESISTOR CH 1/10W 2.2M	1	
R6001	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	1	
R6002	ERJ6GMYJ393	M. RESISTOR CH 1/10W 39K	1	
R6003	ERJ6GMYJ273	M. RESISTOR CH 1/10W 27K	1	
R6004	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	1	
R6005	ERJ6GMYJ221	M. RESISTOR CH 1/10W 220	1	
R6006, 07	ERJ6GMYJ273	M. RESISTOR CH 1/10W 27K	2	
R6008	ERDS2TJ181	C. RESISTOR 1/4W 180	1	
R6009	ERJ6GMYJ332	M. RESISTOR CH 1/10W 3.3K	1	
R6010	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R6011	ERJ6GMYJ272	M. RESISTOR CH 1/10W 2.7K	1	
R6012	ERJ6GMYJ123	M. RESISTOR CH 1/10W 12K	1	
R6014	ERJ6GMYJ332	M. RESISTOR CH 1/10W 3.3K	1	
R6015	ERJ6GMYJ472	M. RESISTOR CH 1/10W 4.7K	1	
R6017, 18	ERJ6GMYJ332	M. RESISTOR CH 1/10W 3.3K	2	
R6020	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	1	
R6021	ERJ6GMYJ102	M. RESISTOR CH 1/10W 1K	1	
R6023, 24	ERJ6GMYJ221	M. RESISTOR CH 1/10W 220	2	
R6027	ERJ6GMYJ221	M. RESISTOR CH 1/10W 220	1	
R6028	ERJ6GMYJ222	M. RESISTOR CH 1/10W 2.2K	1	
R6029	ERJ6GMYJ332	M. RESISTOR CH 1/10W 3.3K	1	
R6030	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	1	
R6031	ERJ6GMYJ105	M. RESISTOR CH 1/10W 1M	1	
R6033	ERJ6GMYJ101	M. RESISTOR CH 1/10W 100	1	
R6035	ERJ6GMYJ221	M. RESISTOR CH 1/10W 220	1	
R6041	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	1	
R6043	ERJ6GMYJ244	M. RESISTOR CH 1/10W 240K	1	
R6044	ERDS2TJ121	C. RESISTOR 1/4W 120	1	
R6045	ERJ6GMYJ223	M. RESISTOR CH 1/10W 22K	1	
R6052, 53	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	2	
R6055	ERJ6GMYJ334	M. RESISTOR CH 1/10W 330K	1	
R7302	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R7305, 06	ERJ6GEYJ101	M. RESISTOR CH 1/10W 100	2	
R7316	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R7318	ERJ3GEYJ221	M. RESISTOR CH 1/16W 220	1	
R7324	ERJ3GEYJ393	M. RESISTOR CH 1/16W 39K	1	
R7325	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R7326	ERJ3GEYJ393	M. RESISTOR CH 1/16W 39K	1	
R7327	ERJ3GEYJ822	M. RESISTOR CH 1/16W 8.2K	1	
R7328, 29	ERJ3GEYJ221	M. RESISTOR CH 1/16W 220	2	
R7504	ERJ6GMYJ221	M. RESISTOR CH 1/10W 220	1	
R7505	ERJ6GMYG363	M. RESISTOR CH 1/10W 36K	1	
R7507, 08	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	2	
R7509	ERJ6GMYG182	M. RESISTOR CH 1/10W 1.8K	1	
R7510	ERDS2TJ180	C. RESISTOR 1/4W 18	1	
R7512, 13	ERJ6GMYG123	M. RESISTOR CH 1/10W 12K	2	
R7514	ERJ6GMYJ101	M. RESISTOR CH 1/10W 100	1	
R7516	ERDS2TJ102	C. RESISTOR 1/4W 1K	1	
R7518	ERDS2TJ150	C. RESISTOR 1/4W 15	1	
R7519	ERJ6GMYG472	M. RESISTOR CH 1/10W 4.7K	1	
R7520	ERJ6GMYG392	M. RESISTOR CH 1/10W 3.9K	1	
R7521	ERJ6GMYG222	M. RESISTOR CH 1/10W 2.2K	1	
R7522, 23	ERJ6GMYG332	M. RESISTOR CH 1/10W 3.3K	2	
R7524	ERJ6GMYG472	M. RESISTOR CH 1/10W 4.7K	1	
R7526	ERJ6GMYG822	M. RESISTOR CH 1/10W 8.2K	1	
R7529	ERJ6GMYJ221	M. RESISTOR CH 1/10W 220	1	
R7604	ERJ6GMYJ102	M. RESISTOR CH 1/10W 1K	1	
R7605, 06	ERG2SJ331	M. RESISTOR 2W 330	2	
R7608	ERJ6GMYJ102	M. RESISTOR CH 1/10W 1K	1	
R7611-14	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	4	
R7704	ERJ6GMYJ102	M. RESISTOR CH 1/10W 1K	1	
R7705, 06	ERJ6GMYJ101	M. RESISTOR CH 1/10W 100	2	
R7708	ERJ6GMYJ222	M. RESISTOR CH 1/10W 2.2K	1	
S6001	VES0834	S-TAB SWITCH	1	
S6002	VSS0520	MODE SELECT SWITCH	1	
S7501, 02	EVQ11L07B	SWITCH	2	
S7505-08	EVQ11L07B	SWITCH	4	
T4002	VLT0895	TRANSFORMER	1	
⚠ TU7601	ENG57806G1	TUNER	1	
X3001	VSX0162	CRYSTAL OSCILLATOR	1	
X3002	VSX0160	CRYSTAL OSCILLATOR	1	
X6001	VSX0660	CRYSTAL OSCILLATOR	1	
X6002	VSX0365	CRYSTAL OSCILLATOR	1	
X7302	VSX0953	CRYSTAL OSCILLATOR	1	
		MISCELLANEOUS		
	VXQ0648	FIP HOLDER	1	
	VSC4753	SHIELD CASE (BOTTOM)	1	FOR NICAM DECODER C. B. A.
	VSC4752	SHIELD CASE (MAIN)	1	FOR NICAM DECODER C. B. A.

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
■	VEP06C93C	MAIN C.B.A.		(RTL)
				NV-HD630AM
B6001	CR2354-1GUF	LITHIUM BATTERY	1	
C1001	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C1002	VCEA0JCB220	E.CAPACITOR 6.3V 22U	1	
C1003	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C1004	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C1005	VCEA1CCB470	E.CAPACITOR 16V 47U	1	
C1007	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C1008	VCEA0JBS470	E.CAPACITOR 6.3V 47U	1	
C1009	VCEA0JBS101	E.CAPACITOR 6.3V 100U	1	
C1011	VCEA1ECB470	E.CAPACITOR 25V 47U	1	
C1014	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C1015	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C2001	ECEA1CKN220	E.CAPACITOR 16V 22U	1	
C2006	ECUM1C474KBN	C.CAPACITOR CH 16V 0.47U	1	
C2008	ECUM1H392KBN	C.CAPACITOR CH 50V 3900P	1	
C2009	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C2010	VCEA1HCB4R7	E.CAPACITOR 50V 4.7U	1	
C2011	ECUM1H222KBN	C.CAPACITOR CH 50V 2200P	1	
C2012	ECUM1H563KBN	C.CAPACITOR CH 50V 0.056U	1	
C2013	VCEA1HCB3R3	E.CAPACITOR 50V 3.3U	1	
C2501,02	ECUM1H563KBN	C.CAPACITOR CH 50V 0.056U	2	
C2503	ECEA1VKN4R7	E.CAPACITOR 35V 4.7U	1	
C2504	VCEA1ECB470	E.CAPACITOR 25V 47U	1	
C2505	ECEA1VKN4R7	E.CAPACITOR 35V 4.7U	1	
C2506	VCEA0JCB221	E.CAPACITOR 6.3V 220U	1	
C2507	ECUM1H473ZFN	C.CAPACITOR CH 50V 0.047U	1	
C2508	ECUM1C683KBN	C.CAPACITOR CH 16V 0.068U	1	
C2509-11	ECUM1C154KBN	C.CAPACITOR CH 16V 0.15U	3	
C2512	ECEA1VKN4R7	E.CAPACITOR 35V 4.7U	1	
C3001	VCEA1CCB470	E.CAPACITOR 16V 47U	1	
C3003	VCEA0JEC471	E.CAPACITOR 6.3V 470U	1	
C3004	ECUM1H560JCN	C.CAPACITOR CH 50V 56P	1	
C3005	ECUM1E104KBN	C.CAPACITOR CH 25V 0.1U	1	
C3006	ECUM1H220JCN	C.CAPACITOR CH 50V 22P	1	
C3007	ECUM1H821JCN	C.CAPACITOR CH 50V 820P	1	
C3008	VCEA1HCB010	E.CAPACITOR 50V 1U	1	
C3009	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C3010	ECUM1H680JCN	C.CAPACITOR CH 50V 68P	1	
C3011	ECUM1H120JCN	C.CAPACITOR CH 50V 12P	1	
C3012	ECUM1E104KBN	C.CAPACITOR CH 25V 0.1U	1	
C3013	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3014	ECUM1E104KBN	C.CAPACITOR CH 25V 0.1U	1	
C3015	VCEA0JCB221	E.CAPACITOR 6.3V 220U	1	
C3016	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C3017	VCEA1HCB010	E.CAPACITOR 50V 1U	1	
C3018	ECUM1H103KBN	C.CAPACITOR CH 50V 0.01U	1	
C3019	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C3020	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C3021	ECUM1E104KBN	C.CAPACITOR CH 25V 0.1U	1	
C3022	ECUM1H222KBN	C.CAPACITOR CH 50V 2200P	1	
C3024	ECUM1H221JCN	C.CAPACITOR CH 50V 220P	1	
C3026	VCEA1HCB3R3	E.CAPACITOR 50V 3.3U	1	
C3027	VCEA1HCBR33	E.CAPACITOR 50V 0.33U	1	
C3028	VCEA0JCB470	E.CAPACITOR 6.3V 47U	1	
C3029	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C3030	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C3031	VCEA0JCB220	E.CAPACITOR 6.3V 22U	1	
C3032	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3033	VCEA1HCBR47	E.CAPACITOR 50V 0.47U	1	
C3034	ECUM1H222KBN	C.CAPACITOR CH 50V 2200P	1	
C3035	VCEA1ECB4R7	E.CAPACITOR 25V 4.7U	1	
C3036	ECUM1H560JCN	C.CAPACITOR CH 50V 56P	1	
C3037	VCEA1ECB4R7	E.CAPACITOR 25V 4.7U	1	
C3038	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C3039	VCEA0JCB221	E.CAPACITOR 6.3V 220U	1	
C3040	VCEA1ECB4R7	E.CAPACITOR 25V 4.7U	1	
C3041	VCEA0JCB221	E.CAPACITOR 6.3V 220U	1	
C3042	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C3043	VCEA0JCB220	E.CAPACITOR 6.3V 22U	1	
C3044	ECUM1E563KBN	C.CAPACITOR CH 25V 0.056U	1	
C3045	VCEA1CCB100	E.CAPACITOR 16V 10U	1	
C3046	ECUM1H561JCN	C.CAPACITOR CH 50V 560P	1	
C3047	ECUM1H221JCN	C.CAPACITOR CH 50V 220P	1	
C3048,49	ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	2	
C3051,52	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C4001	ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C4002	ECUM1H822KBN	C.CAPACITOR CH 50V 8200P	1	
C4003	VCEA0JCB220	E.CAPACITOR 6.3V 22U	1	
C4004	ECUM1H182JCN	C.CAPACITOR CH 50V 1800P	1	
C4005	ECUM1H272KBN	C.CAPACITOR CH 50V 2700P	1	
C4006	VCEA1HCB010	E.CAPACITOR 50V 1U	1	
C4007	VCEA1ECB4R7	E.CAPACITOR 25V 4.7U	1	
C4008	ECUM1H822KBN	C.CAPACITOR CH 50V 8200P	1	
C4009	ECUM1E273KBN	C.CAPACITOR CH 25V 0.027U	1	
C4010	ECUM1H822KBN	C.CAPACITOR CH 50V 8200P	1	
C4011	VCEA1CCB100	E.CAPACITOR 16V 10U	1	
C4012	VCEA0JCB470	E.CAPACITOR 6.3V 47U	1	
C4013	VCEA0JCB220	E.CAPACITOR 6.3V 22U	1	
C4014,15	VCEA1HCBR33	E.CAPACITOR 50V 0.33U	2	
C4016	ECKF1H102KB	C.CAPACITOR 50V 1000P	1	
C4018	ECUM1H223KBN	C.CAPACITOR CH 50V 0.022U	1	
C4020	VCEA0JCB221	E.CAPACITOR 6.3V 220U	1	
C4021	ECQV1H154JM	P.CAPACITOR 50V 0.15U	1	
C4023	ECUM1H472KBN	C.CAPACITOR CH 50V 4700P	1	
C4024	ECQB1H333JF	P.CAPACITOR 50V 0.033U	1	
C4025	ECUM1H222KBN	C.CAPACITOR CH 50V 2200P	1	
C4026	ECUM1H223KBN	C.CAPACITOR CH 50V 0.022U	1	
C4027,28	VCEA0JCB470	E.CAPACITOR 6.3V 47U	2	
C4037	VCEA1HCBR33	E.CAPACITOR 50V 0.33U	1	
C4042	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C4078	VCEA0JCB470	E.CAPACITOR 6.3V 47U	1	
C4501	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C4502	ECA1CAK100X	E.CAPACITOR 16V 10U	1	
C4503	ECQB1H223JF	P.CAPACITOR 50V 0.022U	1	
C4504	ECQB1H472JF	P.CAPACITOR 50V 4700P	1	
C4506	VCEA1HCB4R7	E.CAPACITOR 50V 4.7U	1	
C4509,10	ECA0JAK101X	E.CAPACITOR 6.3V 100U	2	
C4511	ECA1HAK4R7	E.CAPACITOR 50V 4.7U	1	
C4512	VCEA0JAW330	E.CAPACITOR 6.3V 33U	1	
C4513	ECA0JAK101X	E.CAPACITOR 6.3V 100U	1	
C4514	ECUM1H223KBN	C.CAPACITOR CH 50V 0.022U	1	
C4515	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C4516	VCEA0JAW330	E.CAPACITOR 6.3V 33U	1	
C4517	ECA1CAK100X	E.CAPACITOR 16V 10U	1	
C4518	ECQB1H223JF	P.CAPACITOR 50V 0.022U	1	
C4519	ECQB1H472JF	P.CAPACITOR 50V 4700P	1	
C4520	VCEA0JCB470	E.CAPACITOR 6.3V 47U	1	
C4521,22	ECUM1H152KBN	C.CAPACITOR CH 50V 1500P	2	
C6002	ECUM1H221JCN	C.CAPACITOR CH 50V 220P	1	
C6003	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C6006,07	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	2	
C6009	ECUM1H221JCN	C.CAPACITOR CH 50V 220P	1	
C6010	ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C6012,13	ECUM1H101JCN	C.CAPACITOR CH 50V 100P	2	
C6015	ECUM1H150JCN	C.CAPACITOR CH 50V 15P	1	
C6016	ECUM1H180JCN	C.CAPACITOR CH 50V 18P	1	
C6017	ECUM1H100DCN	C.CAPACITOR CH 50V 10P	1	
C6018	ECUM1H180JCN	C.CAPACITOR CH 50V 18P	1	
C6019,20	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	2	
C6021	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C6023	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C6024	VCEA0JEC471	E.CAPACITOR 6.3V 470U	1	
C6031	ECUM1H330JCN	C.CAPACITOR CH 50V 33P	1	
C6033	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C7501	VCEA1HCB100	E.CAPACITOR 50V 10U	1	
C7502	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C7503	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C7505	ECUM1H120JCN	C.CAPACITOR CH 50V 12P	1	
C7603	ECUM1C224ZFN	C.CAPACITOR CH 16V 0.22U	1	
C7606	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C7608	VCEA1HCB100	E.CAPACITOR 50V 10U	1	
C7609	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C7611	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C7612	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C7613	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C7703	ECUM1H101JCN	C.CAPACITOR CH 50V 100P	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C7704	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C7705	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C7706	ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C7707	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C7708	ECUM1H222KBN	C.CAPACITOR CH 50V 2200P	1	
C7709	ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
D1001	MA4051N-M	DIODE	1	
D1002	1SS254	DIODE	1	
D1003	MA4120N-M	DIODE	1	
D1004	1SS254	DIODE	1	
D1005	MA4051N-M	DIODE	1	
D1006	1SS254	DIODE	1	
D2501	MA723VT	DIODE	1	
D2502	1SS254	DIODE	1	
D4001	1SS254	DIODE	1	
D4501-03	1SS254	DIODE	3	
D6001-03	RB441P	DIODE	3	
D6004,05	1SS254	DIODE	2	
D6006	SIR505S	DIODE	1	
D6007-10	1SS254	DIODE	4	
D7501	MA4180N	DIODE	1	
D7505	1SS254	DIODE	1	
D7601	MA4300N-M	DIODE	1	
DP7501	VSL0505	DISPLAY TUBE	1	
IC1001	PQ20VB2E	IC	1	
IC2501	AN3811NK	IC	1	
IC3001	TDA9735HV2	IC	1	
IC4501	BH7803K	IC	1	
IC6001	PNA4611M02VT	IR RECEIVER UNIT	1	
IC6002	PST993D	IC	1	
IC6004,05	RPI354N	IC	2	
IC6007	MN101D02GMA	IC	1	
IC7501	M35502AFP	IC	1	
IC7701	MC74H4066F	IC	1	
⚠ IP1001,02	UNH000300A	IC PROTECTOR	2	
⚠ IP1003	VSF0015A025	IC PROTECTOR	1	
⚠ IP1004	UNH000300A	IC PROTECTOR	1	
JK3001	VJJ0559	RCA PIN JACK (6P)	1	
K1002	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
K2001	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
K4002,03	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	2	
K4504	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
K7602	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
K7701	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
L3002	VLQ0599J390	COIL 39UH	1	
L3003	VLQ0599J121	COIL 120UH	1	
L3004	VLQ0599J220	COIL 22UH	1	
L3005	VLQ0599J151	COIL 150UH	1	
L3006-11	VLQ0599J680	COIL 68UH	6	
L4001	VLQEL07F153J	COIL 15MH	1	
L4003	VLQ0599J121	COIL 120UH	1	
L4026	VLQ0599J121	COIL 120UH	1	
L7604,05	VLQ0599J330	COIL 33UH	2	
L7701	VLQ0599J680	COIL 68UH	1	
L7702	VLQ0599J100	COIL 10UH	1	
LB4001	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
LB4004	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
LB6002	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
P1001	VJS3917A016W	CONNECTOR (FEMALE) 16P	1	
P2001	VJP3835A012	CONNECTOR (MALE) 12P	1	
P2501	VJS3537A009G	CONNECTOR (FEMALE) 9P	1	
P3001	VJS3537A016G	CONNECTOR (FEMALE) 16P	1	
P3002	VJS3478A005T	CONNECTOR (FEMALE) 5P	1	
P4001	VJS3537A006G	CONNECTOR (FEMALE) 6P	1	
P4002	VJS3837A002	CONNECTOR (FEMALE) 2P	1	
P6002	VJS3837A002	CONNECTOR (FEMALE) 2P	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
Q1001	2SC3940A	TRANSISTOR	1	
Q1002,03	2SD1996	TRANSISTOR	2	
Q1005	2SD1996	TRANSISTOR	1	
Q1009	2SD602A	TRANSISTOR	1	
Q3002	2SB709A	TRANSISTOR	1	
Q4002	MSD602-R	TRANSISTOR	1	
Q4003	2SB1321	TRANSISTOR	1	
Q4004	MSD602-R	TRANSISTOR	1	
Q4005	2SD1149	TRANSISTOR	1	
Q4006	2SD601A	TRANSISTOR	1	
Q4009	MSB710-R	TRANSISTOR	1	
Q4501	MSD601-R	TRANSISTOR-RESISTOR	1	
Q4502	2SA1515	TRANSISTOR	1	
Q4503	MSD1328-R	TRANSISTOR	1	
Q6001	PNB2301MBV	TRANSISTOR	1	
Q6002	PNB2301MAV	TRANSISTOR	1	
Q7701	2SB709A	TRANSISTOR	1	
QR1011	MUN2112	TRANSISTOR-RESISTOR	1	
QR3003,04	MUN2213	TRANSISTOR-RESISTOR	2	
QR3006	MUN2213	TRANSISTOR-RESISTOR	1	
QR4004	MUN2111	TRANSISTOR-RESISTOR	1	
QR4501	MUN2212	TRANSISTOR-RESISTOR	1	
QR6001	MUN2211	TRANSISTOR-RESISTOR	1	
R1001	ERDS2TJ561	C.RESISTOR 1/4W 560	1	
R1002	ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R1004	ERJ6GMYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R1010	ERJ6GMYG683	M.RESISTOR CH 1/10W 68K	1	
R1011	ERJ6GMYG752	M.RESISTOR CH 1/10W 7.5K	1	
R1012	ERJ6GMYG433	M.RESISTOR CH 1/10W 43K	1	
R1013,14	ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	2	
R1018,19	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	2	
R1022	ERDS2TJ561	C.RESISTOR 1/4W 560	1	
R2001	ERJ6GMYJ392	M.RESISTOR CH 1/10W 3.9K	1	
R2002	ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R2003	ERJ6GMYJ273	M.RESISTOR CH 1/10W 27K	1	
R2004	ERJ6GMYG393	M.RESISTOR CH 1/10W 39K	1	
R2501	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R2502,03	ERDS2TJ330	C.RESISTOR 1/4W 33	2	
R2504	ERDS2TJ1R2	C.RESISTOR 1/4W 1.2	1	
R2505	ERDS2TJ331	C.RESISTOR 1/4W 330	1	
R2506	ERDS2TJ1R5	C.RESISTOR 1/4W 1.5	1	
R2507	ERDS2TJ330	C.RESISTOR 1/4W 33	1	
R3001	ERDS2TJ471	C.RESISTOR 1/4W 470	1	
R3003	ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R3004	ERJ6GMYJ471	M.RESISTOR CH 1/10W 470	1	
R3005	ERJ6GMYJ331	M.RESISTOR CH 1/10W 330	1	
R3007	ERJ6GMYJ750	M.RESISTOR CH 1/10W 75	1	
R3008	ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R3009	ERJ6GMYJ750	M.RESISTOR CH 1/10W 75	1	
R3011	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R3012	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R3013	ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R3017	ERJ6GMYJ333	M.RESISTOR CH 1/10W 33K	1	
R3018	ERJ6GMYG301	M.RESISTOR CH 1/10W 300	1	
R3019	ERJ6GMYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R3021	ERJ6GMYJ183	M.RESISTOR CH 1/10W 18K	1	
R3022	ERJ6GMYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R3023	ERJ6GMYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R3024	ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R3025	ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R3026	ERJ6GMYJ684	M.RESISTOR CH 1/10W 680K	1	
R3027	ERJ6GMYJ224	M.RESISTOR CH 1/10W 220K	1	
R3028	ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R3029	ERJ6GMYJ331	M.RESISTOR CH 1/10W 330	1	
R3030,31	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	2	
R3032	ERJ6GMYJ271	M.RESISTOR CH 1/10W 270	1	
R3033,34	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	2	
R3037	ERJ6GMYJ822	M.RESISTOR CH 1/10W 8.2K	1	
R3038	ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	1	
R3039	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R3040	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R3043	ERJ6GMYJ821	M.RESISTOR CH 1/10W 820	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R3055	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R4001	ERJ6GMYJ334	M.RESISTOR CH 1/10W 330K	1	
R4002	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R4003	ERJ6GMYJ241	M.RESISTOR CH 1/10W 240	1	
R4004	ERJ6GMYJ273	M.RESISTOR CH 1/10W 27K	1	
R4005	ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R4006	ERJ6GMYJ163	M.RESISTOR CH 1/10W 16K	1	
R4007	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R4008	ERJ6GMYJ391	M.RESISTOR CH 1/10W 390	1	
R4009	ERJ6GMYJ331	M.RESISTOR CH 1/10W 330	1	
R4010	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R4011	ERJ6GMYK225	M.RESISTOR CH 1/10W 2.2M	1	
R4012	ERJ6GMYJ683	M.RESISTOR CH 1/10W 68K	1	
R4013	ERJ6GMYJ393	M.RESISTOR CH 1/10W 39K	1	
R4014	ERJ6GMYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R4015	ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R4016	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R4017	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R4019,20	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	2	
R4023	ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R4024	ERJ6GMYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R4025	ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R4027,28	ERJ6GMYJ472	M.RESISTOR CH 1/10W 4.7K	2	
R4029	ERJ6GMYJ682	M.RESISTOR CH 1/10W 6.8K	1	
R4030	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R4031	ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R4032,33	ERJ6GMYJ822	M.RESISTOR CH 1/10W 8.2K	2	
R4035	ERJ6GMYJ183	M.RESISTOR CH 1/10W 18K	1	
R4037	ERJ6GMYJ471	M.RESISTOR CH 1/10W 470	1	
R4058	ERJ6GMYJ682	M.RESISTOR CH 1/10W 6.8K	1	
R4063	ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R4503,04	ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	2	
R4505	ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R4506,07	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	2	
R4508	ERDS2TJ471	C.RESISTOR 1/4W 470	1	
R4510	ERDS2TJ471	C.RESISTOR 1/4W 470	1	
R4513,14	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	2	
R4515,16	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	2	
R4517	ERJ6GMYJ393	M.RESISTOR CH 1/10W 39K	1	
R4518	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R4519	ERJ6GMYJ393	M.RESISTOR CH 1/10W 39K	1	
R4520	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R4521	ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R4522	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R4523	ERJ6GMYJ393	M.RESISTOR CH 1/10W 39K	1	
R4524	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R4527,28	ERJ6RBD273	M.RESISTOR CH 1/10W 27K	2	
R4529	ERJ6GMYJ393	M.RESISTOR CH 1/10W 39K	1	
R4530	ERJ6GMYK225	M.RESISTOR CH 1/10W 2.2M	1	
R4537	ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R6001	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R6002	ERJ6GMYJ393	M.RESISTOR CH 1/10W 39K	1	
R6003	ERJ6GMYJ273	M.RESISTOR CH 1/10W 27K	1	
R6004	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R6005	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R6006,07	ERJ6GMYJ273	M.RESISTOR CH 1/10W 27K	2	
R6008	ERDS2TJ181	C.RESISTOR 1/4W 180	1	
R6009	ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R6010	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R6011	ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R6012	ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R6014	ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R6015	ERJ6GMYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R6017,18	ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	2	
R6020	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R6021	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R6023,24	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	2	
R6027	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R6028	ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R6029	ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R6030	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R6031	ERJ6GMYJ105	M.RESISTOR CH 1/10W 1M	1	
R6033	ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	1	
R6035	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R6039	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R6041	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R6044	ERDS2TJ121	C.RESISTOR 1/4W 120	1	
R6045	ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R6052,53	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	2	
R6055	ERJ6GMYJ334	M.RESISTOR CH 1/10W 330K	1	
R7501	ERJ6GMYG114	M.RESISTOR CH 1/10W 110K	1	
R7502	ERJ6GMYG202	M.RESISTOR CH 1/10W 2K	1	
R7504	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R7505	ERJ6GMYG363	M.RESISTOR CH 1/10W 36K	1	
R7507,08	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	2	
R7509	ERJ6GMYG182	M.RESISTOR CH 1/10W 1.8K	1	
R7510	ERDS2TJ180	C.RESISTOR 1/4W 18	1	
R7512,13	ERJ6GMYG123	M.RESISTOR CH 1/10W 12K	2	
R7514	ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	1	
R7516	ERDS2TJ102	C.RESISTOR 1/4W 1K	1	
R7518	ERDS2TJ150	C.RESISTOR 1/4W 15	1	
R7519	ERJ6GMYG512	M.RESISTOR CH 1/10W 5.1K	1	
R7520	ERJ6GMYG392	M.RESISTOR CH 1/10W 3.9K	1	
R7521	ERJ6GMYG242	M.RESISTOR CH 1/10W 2.4K	1	
R7522	ERJ6GMYG332	M.RESISTOR CH 1/10W 3.3K	1	
R7523	ERJ6GMYG362	M.RESISTOR CH 1/10W 3.6K	1	
R7524	ERJ6GMYG472	M.RESISTOR CH 1/10W 4.7K	1	
R7526	ERJ6GMYG912	M.RESISTOR CH 1/10W 9.1K	1	
R7529	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R7604	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R7605,06	ERG2SJ331	M.RESISTOR 2W 330	2	
R7608	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R7611-14	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	4	
R7701	ERJ6GMYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R7702,03	ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	2	
R7704	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R7705,06	ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	2	
R7707	ERJ6GMYJ224	M.RESISTOR CH 1/10W 220K	1	
R7708	ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R7709	ERJ6GMYJ224	M.RESISTOR CH 1/10W 220K	1	
S6001	VES0834	S-TAB SWITCH	1	
S6002	VSS0520	MODE SELECT SWITCH	1	
S7501-08	EVQ11L07B	SWITCH	8	
T4001	EQQ7QF025Q	TRANSFORMER	1	
T4002	EQQ7QF026Q	TRANSFORMER	1	
⚠ TU7601	ENG57807G1	TUNER	1	
X3001	VSX0162	CRYSTAL OSCILLATOR	1	
X3002	VSX0160	CRYSTAL OSCILLATOR	1	
X6001	VSX0660	CRYSTAL OSCILLATOR	1	
X6002	VSX0365	CRYSTAL OSCILLATOR	1	
		MISCELLANEOUS		
	VXQ0648	FIP HOLDER	1	
■	VEP06C93E	MAIN C.B.A.		(RTL)
				NV-HD630BD
B6001	CR2354-1GUF	LITHIUM BATTERY	1	
C0701	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C0702	ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C0703	ECUM1A105KBN	C.CAPACITOR CH 10V 1U	1	
C0704	ECUM1E333ZFN	C.CAPACITOR CH 25V 0.033U	1	
C0706,07	ECEA1HKA010	E.CAPACITOR 50V 1U	2	
C0708	ECEA1HKAR47	E.CAPACITOR 50V 0.47U	1	
C0709,10	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	2	
C0711	ECEA1CKA220	E.CAPACITOR 16V 22U	1	
C0712	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C0713	ECEA0JKA331	E.CAPACITOR 6.3V 330U	1	
C0714	ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C0715	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	
C0716	ECUX1H123KBV	C.CAPACITOR CH 50V 0.012U	1	
C0717	ECUM1H330GUV	C.CAPACITOR CH 50V 33P	1	
C0718	ECEA1CKN100	E.CAPACITOR 16V 10U	1	
C0719	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C0720	ECUX1H331JCV	C.CAPACITOR CH 50V 330P	1	
C0722	ECUX1H331JCV	C.CAPACITOR CH 50V 330P	1	
C1001	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C1002	VCEA0JCB220	E.CAPACITOR 6.3V 22U	1	
C1003	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C1004	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C1005	VCEA1CCB470	E.CAPACITOR 16V 47U	1	
C1007	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C1008	VCEA0JBS470	E.CAPACITOR 6.3V 47U	1	
C1009	VCEA0JBS101	E.CAPACITOR 6.3V 100U	1	
C1011	VCEA1ECB470	E.CAPACITOR 25V 47U	1	
C1014	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C1015	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C2001	ECEA1CKN220	E.CAPACITOR 16V 22U	1	
C2006	ECUM1C474KBN	C.CAPACITOR CH 16V 0.47U	1	
C2008	ECUM1H392KBN	C.CAPACITOR CH 50V 3900P	1	
C2010	VCEA1HCB4R7	E.CAPACITOR 50V 4.7U	1	
C2011	ECUM1H222KBN	C.CAPACITOR CH 50V 2200P	1	
C2012	ECUM1H563KBN	C.CAPACITOR CH 50V 0.056U	1	
C2013	VCEA1HCB3R3	E.CAPACITOR 50V 3.3U	1	
C2501,02	ECUM1H563KBN	C.CAPACITOR CH 50V 0.056U	2	
C2503	ECEA1VKN4R7	E.CAPACITOR 35V 4.7U	1	
C2504	VCEA1ECB470	E.CAPACITOR 25V 47U	1	
C2505	ECEA1VKN4R7	E.CAPACITOR 35V 4.7U	1	
C2506	VCEA0JCB221	E.CAPACITOR 6.3V 220U	1	
C2507	ECUM1H473ZFN	C.CAPACITOR CH 50V 0.047U	1	
C2508	ECUM1C683KBN	C.CAPACITOR CH 16V 0.068U	1	
C2509-11	ECUM1C154KBN	C.CAPACITOR CH 16V 0.15U	3	
C2512	ECEA1VKN4R7	E.CAPACITOR 35V 4.7U	1	
C3001	VCEA1CCB470	E.CAPACITOR 16V 47U	1	
C3003	VCEA0JEC471	E.CAPACITOR 6.3V 470U	1	
C3004	ECUM1H560JCN	C.CAPACITOR CH 50V 56P	1	
C3005	ECUM1E104KBN	C.CAPACITOR CH 25V 0.1U	1	
C3006	ECUM1H220JCN	C.CAPACITOR CH 50V 22P	1	
C3007	ECUM1H821JCN	C.CAPACITOR CH 50V 820P	1	
C3008	VCEA1HCB010	E.CAPACITOR 50V 1U	1	
C3009	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C3010	ECUM1H680JCN	C.CAPACITOR CH 50V 68P	1	
C3011	ECUM1H120JCN	C.CAPACITOR CH 50V 12P	1	
C3012	ECUM1E104KBN	C.CAPACITOR CH 25V 0.1U	1	
C3013	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3014	ECUM1E104KBN	C.CAPACITOR CH 25V 0.1U	1	
C3015	VCEA0JCB221	E.CAPACITOR 6.3V 220U	1	
C3016	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C3017	VCEA1HCB010	E.CAPACITOR 50V 1U	1	
C3018	ECUM1H103KBN	C.CAPACITOR CH 50V 0.01U	1	
C3019	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C3020	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C3021	ECUM1E104KBN	C.CAPACITOR CH 25V 0.1U	1	
C3022	ECUM1H222KBN	C.CAPACITOR CH 50V 2200P	1	
C3024	ECUM1H221JCN	C.CAPACITOR CH 50V 220P	1	
C3026	VCEA1HCB3R3	E.CAPACITOR 50V 3.3U	1	
C3027	VCEA1HCBR33	E.CAPACITOR 50V 0.33U	1	
C3028	VCEA0JCB470	E.CAPACITOR 6.3V 47U	1	
C3029	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C3030	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C3031	VCEA0JCB220	E.CAPACITOR 6.3V 22U	1	
C3032	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3033	VCEA1HCBR47	E.CAPACITOR 50V 0.47U	1	
C3034	ECUM1H222KBN	C.CAPACITOR CH 50V 2200P	1	
C3035	VCEA1ECB4R7	E.CAPACITOR 25V 4.7U	1	
C3036	ECUM1H560JCN	C.CAPACITOR CH 50V 56P	1	
C3037	VCEA1ECB4R7	E.CAPACITOR 25V 4.7U	1	
C3038	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C3039	VCEA0JCB221	E.CAPACITOR 6.3V 220U	1	
C3040	VCEA1ECB4R7	E.CAPACITOR 25V 4.7U	1	
C3041	VCEA0JCB221	E.CAPACITOR 6.3V 220U	1	
C3042	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C3043	VCEA0JCB220	E.CAPACITOR 6.3V 22U	1	
C3044	ECUM1E563KBN	C.CAPACITOR CH 25V 0.056U	1	
C3045	VCEA1CCB100	E.CAPACITOR 16V 10U	1	
C3046	ECUM1H561JCN	C.CAPACITOR CH 50V 560P	1	
C3047	ECUM1H221JCN	C.CAPACITOR CH 50V 220P	1	
C3048,49	ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	2	
C3051,52	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C4001	ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C4002	ECUM1H822KBN	C.CAPACITOR CH 50V 8200P	1	
C4003	VCEA0JCB220	E.CAPACITOR 6.3V 22U	1	
C4004	ECUM1H182JCN	C.CAPACITOR CH 50V 1800P	1	
C4005	ECUM1H272KBN	C.CAPACITOR CH 50V 2700P	1	
C4006	VCEA1HCB010	E.CAPACITOR 50V 1U	1	
C4007	VCEA1ECB4R7	E.CAPACITOR 25V 4.7U	1	
C4008	ECUM1H822KBN	C.CAPACITOR CH 50V 8200P	1	
C4009	ECUM1E273KBN	C.CAPACITOR CH 25V 0.027U	1	
C4010	ECUM1H822KBN	C.CAPACITOR CH 50V 8200P	1	
C4011	VCEA1CCB100	E.CAPACITOR 16V 10U	1	
C4012	VCEA0JCB470	E.CAPACITOR 6.3V 47U	1	
C4013	VCEA0JCB220	E.CAPACITOR 6.3V 22U	1	
C4014,15	VCEA1HCBR33	E.CAPACITOR 50V 0.33U	2	
C4016	ECKF1H102KB	C.CAPACITOR 50V 1000P	1	
C4018	ECUM1H223KBN	C.CAPACITOR CH 50V 0.022U	1	
C4020	VCEA0JCB221	E.CAPACITOR 6.3V 220U	1	
C4021	ECQB1H223JF	P.CAPACITOR 50V 0.022U	1	
C4023	ECUM1H152KBN	C.CAPACITOR CH 50V 1500P	1	
C4028	VCEA0JCB470	E.CAPACITOR 6.3V 47U	1	
C4037	VCEA1HCBR33	E.CAPACITOR 50V 0.33U	1	
C4042	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C4501	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C4502	ECA1CAK100X	E.CAPACITOR 16V 10U	1	
C4503	ECQB1H223JF	P.CAPACITOR 50V 0.022U	1	
C4504	ECQB1H472JF	P.CAPACITOR 50V 4700P	1	
C4506	VCEA1HCB4R7	E.CAPACITOR 50V 4.7U	1	
C4509,10	ECA0JAK101X	E.CAPACITOR 6.3V 100U	2	
C4511	ECA1HAK4R7	E.CAPACITOR 50V 4.7U	1	
C4512	VCEA0JAW330	E.CAPACITOR 6.3V 33U	1	
C4513	ECA0JAK101X	E.CAPACITOR 6.3V 100U	1	
C4514	ECUM1H223KBN	C.CAPACITOR CH 50V 0.022U	1	
C4515	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C4516	VCEA0JAW330	E.CAPACITOR 6.3V 33U	1	
C4517	ECA1CAK100X	E.CAPACITOR 16V 10U	1	
C4518	ECQB1H223JF	P.CAPACITOR 50V 0.022U	1	
C4519	ECQB1H472JF	P.CAPACITOR 50V 4700P	1	
C4520	VCEA0JCB470	E.CAPACITOR 6.3V 47U	1	
C4521,22	ECUM1H152KBN	C.CAPACITOR CH 50V 1500P	2	
C6002	ECUM1H221JCN	C.CAPACITOR CH 50V 220P	1	
C6003	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C6006,07	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	2	
C6009	ECUM1H221JCN	C.CAPACITOR CH 50V 220P	1	
C6010	ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C6012,13	ECUM1H101JCN	C.CAPACITOR CH 50V 100P	2	
C6015	ECUM1H150JCN	C.CAPACITOR CH 50V 15P	1	
C6016	ECUM1H180JCN	C.CAPACITOR CH 50V 18P	1	
C6017	ECUM1H100DCN	C.CAPACITOR CH 50V 10P	1	
C6018	ECUM1H180JCN	C.CAPACITOR CH 50V 18P	1	
C6019,20	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	2	
C6021	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C6023	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C6024	VCEA0JEC471	E.CAPACITOR 6.3V 470U	1	
C6031	ECUM1H330JCN	C.CAPACITOR CH 50V 33P	1	
C6033	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C7301	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C7302	VCEA0JAW101	E.CAPACITOR 6.3V 100U	1	
C7303	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C7304	VCEA0JAW101	E.CAPACITOR 6.3V 100U	1	
C7305,06	ECUX1H330JCV	C.CAPACITOR CH 50V 33P	2	
C7307	ECUX1H470JCV	C.CAPACITOR CH 50V 47P	1	
C7308	ECEA1HKA2R2	E.CAPACITOR 50V 2.2U	1	
C7311	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
C7312,13	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	2	
C7315	ECUM1E104KBN	C.CAPACITOR CH 25V 0.1U	1	
C7316	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C7317	VCEA1CAW100	E.CAPACITOR 16V 10U	1	
C7318	VCEA0JAW470	E.CAPACITOR 6.3V 47U	1	
C7319,20	VCEA1CAW100	E.CAPACITOR 16V 10U	2	
C7321	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C7322,23	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	2	
C7324-26	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	3	
C7327	ECUM1C334KBN	C.CAPACITOR CH 16V 0.33U	1	
C7328	ECUM1E333KBN	C.CAPACITOR CH 25V 0.033U	1	
C7329	ECUX1H150JCV	C.CAPACITOR CH 50V 15P	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C7330	ECUX1H390JCV	C.CAPACITOR CH 50V 39P	1	
C7501	VCEA1HCB100	E.CAPACITOR 50V 10U	1	
C7502	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C7503	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C7505	ECUM1H120JCN	C.CAPACITOR CH 50V 12P	1	
C7603	ECUM1C224ZFN	C.CAPACITOR CH 16V 0.22U	1	
C7606	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C7608	VCEA1HCB100	E.CAPACITOR 50V 10U	1	
C7609	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C7611	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C7612	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C7613	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C7617	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C7703	ECUM1H101JCN	C.CAPACITOR CH 50V 100P	1	
C7704	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C7705	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C7706	ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C7707	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C7708	ECUM1H222KBN	C.CAPACITOR CH 50V 2200P	1	
C7709	ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
D0701,02	MA77	DIODE	2	
D1001	MA4051N-M	DIODE	1	
D1002	1SS254	DIODE	1	
D1003	MA4120N-M	DIODE	1	
D1004	1SS254	DIODE	1	
D1005	MA4051N-M	DIODE	1	
D1006	1SS254	DIODE	1	
D2501	MA723VT	DIODE	1	
D2502	1SS254	DIODE	1	
D4001	1SS254	DIODE	1	
D4501-03	1SS254	DIODE	3	
D6001-03	RB441P	DIODE	3	
D6004,05	1SS254	DIODE	2	
D6006	SIR505S	DIODE	1	
D6007-10	1SS254	DIODE	4	
D7302	BB135	DIODE	1	
D7501	MA4180N	DIODE	1	
D7505	1SS254	DIODE	1	
D7601	MA4300N-M	DIODE	1	
DP7501	VSL0505	DISPLAY TUBE	1	
FL7301	VLF0633	FILTER	1	
IC0701	LA75501M	IC	1	
IC1001	PQ20VB2E	IC	1	
IC2501	AN3811NK	IC	1	
IC3001	TDA9735HV2	IC	1	
IC4501	BH7803K	IC	1	
IC6001	PNA4611M02VT	IR RECEIVER UNIT	1	
IC6002	PST993D	IC	1	
IC6004,05	RPI354N	IC	2	
IC6007	MN101D02GMA	IC	1	
IC7301	TDA9874H	IC	1	
IC7302	PST7043	IC	1	
IC7501	M35502AFP	IC	1	
IC7701	MC74H4066F	IC	1	
⚠ IP1001,02	UNH000300A	IC PROTECTOR	2	
⚠ IP1003	VSF0015A025	IC PROTECTOR	1	
⚠ IP1004	UNH000300A	IC PROTECTOR	1	
JK3001	VJJ0559	RCA PIN JACK (6P)	1	
K0704	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
K0707	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
K1002	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
K2001	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
K4001	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
K4004	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
K7301,02	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	2	
K7304	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	
K7602	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
K7701	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
L0701	VLQ0163JR47	COIL 0.47UH	1	
L0702	ELJFA151KB	CHIP INDUCTOR 150UH	1	
L0703	VLQ0163J1R2	COIL 1.2UH	1	
L3002	VLQ0599J390	COIL 39UH	1	
L3003	VLQ0599J121	COIL 120UH	1	
L3004	VLQ0599J220	COIL 22UH	1	
L3005	VLQ0599J151	COIL 150UH	1	
L3006-11	VLQ0599J680	COIL 68UH	6	
L4001	VLQEL07F153J	COIL 15MH	1	
L4003	VLQ0599J121	COIL 120UH	1	
L7301	VLQ0599J3R3	COIL 3.3UH	1	
L7302	VLQ0599J1R0	COIL 1UH	1	
L7601	VLQ0599J330	COIL 33UH	1	
L7604,05	VLQ0599J330	COIL 33UH	2	
L7607	VLQ0599J100	COIL 10UH	1	
L7701	VLQ0599J680	COIL 68UH	1	
L7702	VLQ0599J100	COIL 10UH	1	
LB4001	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
LB4004	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
LB6002	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
LB7301-04	VLP0150	COIL	4	
P1001	VJS3917A016W	CONNECTOR (FEMALE) 16P	1	
P2001	VJP3835A012	CONNECTOR (MALE) 12P	1	
P2501	VJS3537A009G	CONNECTOR (FEMALE) 9P	1	
P3001	VJS3537A016G	CONNECTOR (FEMALE) 16P	1	
P3002	VJS3478A005T	CONNECTOR (FEMALE) 5P	1	
P4001	VJS3537A006G	CONNECTOR (FEMALE) 6P	1	
P4002	VJS3837A002	CONNECTOR (FEMALE) 2P	1	
P6002	VJS3837A002	CONNECTOR (FEMALE) 2P	1	
P6003	VJS3905	DEW SENSOR CONNECTOR	1	
PK0701	VJR0826E009W	CONNECTOR (MALE) 9P	1	
PK7301	VJR0777B007W	CONNECTOR (MALE) 7P	1	
PK7302	VJR0777B006W	CONNECTOR (MALE) 6P	1	
PP0701	VJP3589A004B	CONNECTOR (MALE) 4P	1	
Q0701	2SD601A-S	TRANSISTOR	1	
Q1001	2SC3940A	TRANSISTOR	1	
Q1002,03	2SD1996	TRANSISTOR	2	
Q1005	2SD1996	TRANSISTOR	1	
Q1009	2SD602A	TRANSISTOR	1	
Q3002	2SB709A	TRANSISTOR	1	
Q4002	MSD602-R	TRANSISTOR	1	
Q4003	2SB1321	TRANSISTOR	1	
Q4005	2SD1149	TRANSISTOR	1	
Q4006	2SD601A	TRANSISTOR	1	
Q4501	MSD601-R	TRANSISTOR-RESISTOR	1	
Q4502	2SA1515	TRANSISTOR	1	
Q4503	MSD1328-R	TRANSISTOR	1	
Q6001	PNB2301MBV	TRANSISTOR	1	
Q6002	PNB2301MAV	TRANSISTOR	1	
Q7701	2SB709A	TRANSISTOR	1	
QR0702	DTC363EK	DIGITAL TRANSISTOR	1	
QR0703	XN4213	TRANSISTOR-RESISTOR	1	
QR0706	DTC363EK	DIGITAL TRANSISTOR	1	
QR1011	MUN2112	TRANSISTOR-RESISTOR	1	
QR3003,04	MUN2213	TRANSISTOR-RESISTOR	2	
QR3006	MUN2213	TRANSISTOR-RESISTOR	1	
QR4004	MUN2111	TRANSISTOR-RESISTOR	1	
QR4501	MUN2212	TRANSISTOR-RESISTOR	1	
QR6001	MUN2211	TRANSISTOR-RESISTOR	1	
R0703	ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	1	
R0704	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R0705	ERJ3GEYJ362	M.RESISTOR CH 1/16W 3.6K	1	
R0706	ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R0707	ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	
R0708	ERJ3GEYJ332	M.RESISTOR CH 1/16W 3.3K	1	
R0709	ERJ6GEYJ104	M.RESISTOR CH 1/10W 100K	1	
R0710	ERJ3GEYG244	M.RESISTOR CH 1/16W 240K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R0711	ERJ3GEYJ361	M.RESISTOR CH 1/16W 360	1	
R0712	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R0713	ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R0714	ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R0715	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R0717	ERJ3GEYJ271	M.RESISTOR CH 1/16W 270	1	
R0719	ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R0722	ERJ3GEYG184	M.RESISTOR CH 1/16W 180K	1	
R0723	ERJ3GEYG562	M.RESISTOR CH 1/16W 5.6K	1	
R0724	ERJ3GEYG222	M.RESISTOR CH 1/16W 2.2K	1	
R0725	ERJ6GEYJ101	M.RESISTOR CH 1/10W 100	1	
R0726	ERJ3GEYJ154	M.RESISTOR CH 1/16W 150K	1	
R0727	ERJ3GEYJ181	M.RESISTOR CH 1/16W 180	1	
R0731	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R0732	ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R0733	ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R0734	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R0737	ERJ3GEYJ821	M.RESISTOR CH 1/16W 820	1	
R1001	ERDS2TJ561	C.RESISTOR 1/4W 560	1	
R1002	ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R1004	ERJ6GMYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R1010	ERJ6GMYG683	M.RESISTOR CH 1/10W 68K	1	
R1011	ERJ6GMYG752	M.RESISTOR CH 1/10W 7.5K	1	
R1012	ERJ6GMYG433	M.RESISTOR CH 1/10W 43K	1	
R1013, 14	ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	2	
R1018, 19	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	2	
R1022	ERDS2TJ561	C.RESISTOR 1/4W 560	1	
R2001	ERJ6GMYJ392	M.RESISTOR CH 1/10W 3.9K	1	
R2002	ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R2003	ERJ6GMYJ273	M.RESISTOR CH 1/10W 27K	1	
R2004	ERJ6GMYG393	M.RESISTOR CH 1/10W 39K	1	
R2501	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R2502, 03	ERDS2TJ330	C.RESISTOR 1/4W 33	2	
R2504	ERDS2TJ1R2	C.RESISTOR 1/4W 1.2	1	
R2505	ERDS2TJ331	C.RESISTOR 1/4W 330	1	
R2506	ERDS2TJ1R5	C.RESISTOR 1/4W 1.5	1	
R2507	ERDS2TJ330	C.RESISTOR 1/4W 33	1	
R3001	ERDS2TJ471	C.RESISTOR 1/4W 470	1	
R3003	ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R3004	ERJ6GMYJ471	M.RESISTOR CH 1/10W 470	1	
R3005	ERJ6GMYJ331	M.RESISTOR CH 1/10W 330	1	
R3007	ERJ6GMYJ750	M.RESISTOR CH 1/10W 75	1	
R3008	ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R3009	ERJ6GMYJ750	M.RESISTOR CH 1/10W 75	1	
R3011	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R3012	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R3013	ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R3017	ERJ6GMYJ333	M.RESISTOR CH 1/10W 33K	1	
R3018	ERJ6GMYG301	M.RESISTOR CH 1/10W 300	1	
R3019	ERJ6GMYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R3021	ERJ6GMYJ183	M.RESISTOR CH 1/10W 18K	1	
R3022	ERJ6GMYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R3023	ERJ6GMYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R3024	ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R3025	ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R3026	ERJ6GMYJ684	M.RESISTOR CH 1/10W 680K	1	
R3027	ERJ6GMYJ224	M.RESISTOR CH 1/10W 220K	1	
R3028	ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R3029	ERJ6GMYJ331	M.RESISTOR CH 1/10W 330	1	
R3030, 31	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	2	
R3032	ERJ6GMYJ271	M.RESISTOR CH 1/10W 270	1	
R3033, 34	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	2	
R3037	ERJ6GMYJ822	M.RESISTOR CH 1/10W 8.2K	1	
R3038	ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	1	
R3039	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R3040	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R3043	ERJ6GMYJ821	M.RESISTOR CH 1/10W 820	1	
R3055	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R4001	ERJ6GMYJ334	M.RESISTOR CH 1/10W 330K	1	
R4002	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R4003	ERJ6GMYJ241	M.RESISTOR CH 1/10W 240	1	
R4004	ERJ6GMYJ273	M.RESISTOR CH 1/10W 27K	1	
R4005	ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R4006	ERJ6GMYJ163	M.RESISTOR CH 1/10W 16K	1	
R4007	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R4008	ERJ6GMYJ391	M.RESISTOR CH 1/10W 390	1	
R4009	ERJ6GMYJ331	M.RESISTOR CH 1/10W 330	1	
R4010	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R4011	ERJ6GMYK225	M.RESISTOR CH 1/10W 2.2M	1	
R4012	ERJ6GMYJ393	M.RESISTOR CH 1/10W 39K	1	
R4013	ERJ6GMYJ183	M.RESISTOR CH 1/10W 18K	1	
R4014	ERJ6GMYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R4015	ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R4016	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R4017	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R4019, 20	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	2	
R4023, 24	ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	2	
R4025	ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R4027	ERJ6GMYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R4030	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R4031	ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R4032, 33	ERJ6GMYJ822	M.RESISTOR CH 1/10W 8.2K	2	
R4035	ERJ6GMYJ183	M.RESISTOR CH 1/10W 18K	1	
R4037	ERJ6GMYJ471	M.RESISTOR CH 1/10W 470	1	
R4063	ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R4501, 02	ERJ6GMYJ513	M.RESISTOR CH 1/10W 51K	2	
R4503, 04	ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	2	
R4505	ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R4506, 07	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	2	
R4508	ERDS2TJ471	C.RESISTOR 1/4W 470	1	
R4510	ERDS2TJ471	C.RESISTOR 1/4W 470	1	
R4513-16	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	4	
R4517	ERJ6GMYJ393	M.RESISTOR CH 1/10W 39K	1	
R4518	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R4519	ERJ6GMYJ393	M.RESISTOR CH 1/10W 39K	1	
R4520	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R4521	ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R4522	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R4523	ERJ6GMYJ393	M.RESISTOR CH 1/10W 39K	1	
R4524	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R4527, 28	ERJ6RBD273	M.RESISTOR CH 1/10W 27K	2	
R4529	ERJ6GMYJ393	M.RESISTOR CH 1/10W 39K	1	
R4530	ERJ6GMYK225	M.RESISTOR CH 1/10W 2.2M	1	
R6001	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R6002	ERJ6GMYJ393	M.RESISTOR CH 1/10W 39K	1	
R6003	ERJ6GMYJ273	M.RESISTOR CH 1/10W 27K	1	
R6004	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R6005	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R6006, 07	ERJ6GMYJ273	M.RESISTOR CH 1/10W 27K	2	
R6008	ERDS2TJ181	C.RESISTOR 1/4W 180	1	
R6009	ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R6010	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R6011	ERJ6GMYJ243	M.RESISTOR CH 1/10W 24K	1	
R6012	ERJ6GMYJ183	M.RESISTOR CH 1/10W 18K	1	
R6014	ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R6015	ERJ6GMYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R6017, 18	ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	2	
R6020	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R6021	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R6023, 24	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	2	
R6027	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R6028	ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R6029	ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R6030	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R6031	ERJ6GMYJ105	M.RESISTOR CH 1/10W 1M	1	
R6033	ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	1	
R6035	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R6039	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R6041	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R6043	ERJ6GMYJ244	M.RESISTOR CH 1/10W 240K	1	
R6044	ERDS2TJ121	C.RESISTOR 1/4W 120	1	
R6045	ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R6052, 53	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	2	
R6055	ERJ6GMYJ334	M.RESISTOR CH 1/10W 330K	1	
R7302	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R7305, 06	ERJ6GEYJ101	M.RESISTOR CH 1/10W 100	2	
R7316	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R7318	ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R7324	ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	
R7325	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R7326	ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	
R7327	ERJ3GEYJ822	M.RESISTOR CH 1/16W 8.2K	1	
R7328, 29	ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	2	
R7504	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R7505	ERJ6GMYG363	M.RESISTOR CH 1/10W 36K	1	
R7507, 08	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	2	
R7509	ERJ6GMYG182	M.RESISTOR CH 1/10W 1.8K	1	
R7510	ERDS2TJ180	C.RESISTOR 1/4W 18	1	
R7512, 13	ERJ6GMYG123	M.RESISTOR CH 1/10W 12K	2	
R7514	ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	1	
R7516	ERDS2TJ102	C.RESISTOR 1/4W 1K	1	
R7518	ERDS2TJ150	C.RESISTOR 1/4W 15	1	
R7519	ERJ6GMYG472	M.RESISTOR CH 1/10W 4.7K	1	
R7520	ERJ6GMYG392	M.RESISTOR CH 1/10W 3.9K	1	
R7521	ERJ6GMYG222	M.RESISTOR CH 1/10W 2.2K	1	
R7522, 23	ERJ6GMYG332	M.RESISTOR CH 1/10W 3.3K	2	
R7524	ERJ6GMYG472	M.RESISTOR CH 1/10W 4.7K	1	
R7526	ERJ6GMYG822	M.RESISTOR CH 1/10W 8.2K	1	
R7529	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R7604	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R7605, 06	ERG2SJ331	M.RESISTOR 2W 330	2	
R7608	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R7611-14	ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	4	
R7701	ERJ6GMYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R7702, 03	ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	2	
R7704	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R7705, 06	ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	2	
R7707	ERJ6GMYJ224	M.RESISTOR CH 1/10W 220K	1	
R7708	ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R7709	ERJ6GMYJ224	M.RESISTOR CH 1/10W 220K	1	
S6001	VES0834	S-TAB SWITCH	1	
S6002	VSS0520	MODE SELECT SWITCH	1	
S7501, 02	EVQ11L07B	SWITCH	2	
S7505-08	EVQ11L07B	SWITCH	4	
T0701	EQV5EC081P	TRANSFORMER	1	
T4002	VLT0895	TRANSFORMER	1	
⚠ TU7601	ENG47304G1	TUNER	1	
VR0701	EVNCBAA00B14	V.RESISTOR	1	
X0702	VLF1414	COIL	1	
X0704	VLF1489	COIL	1	
X3001	VSX0162	CRYSTAL OSCILLATOR	1	
X3002	VSX0160	CRYSTAL OSCILLATOR	1	
X6001	VSX0660	CRYSTAL OSCILLATOR	1	
X6002	VSX0365	CRYSTAL OSCILLATOR	1	
X7302	VSX0953	CRYSTAL OSCILLATOR	1	
		MISCELLANEOUS		
	VXQ0648	FIP HOLDER	1	
	VSC4753	SHIELD CASE (BOTTOM)	1	FOR NICAM DECODER C.B.A.
	VSC4752	SHIELD CASE (MAIN)	1	FOR NICAM DECODER C.B.A.
	VMP4471	TV DEMODULATOR ANGLE	1	FOR TV DEMODULATOR C.B.A.
■	VEP06C93G	MAIN C.B.A.		(RTL)
				NV-HD635AM
B6001	CR2354-1GUF	LITHIUM BATTERY	1	
C1001	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C1002	VCEA0JCB220	E.CAPACITOR 6.3V 22U	1	
C1003	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C1004	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C1005	VCEA1CCB470	E.CAPACITOR 16V 47U	1	
C1007	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C1008	VCEA0JBS470	E.CAPACITOR 6.3V 47U	1	
C1009	VCEA0JBS101	E.CAPACITOR 6.3V 100U	1	
C1011	VCEA1ECB470	E.CAPACITOR 25V 47U	1	
C1014	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C1015	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C2001	ECEA1CKN220	E.CAPACITOR 16V 22U	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C2006	ECUM1C474KBN	C.CAPACITOR CH 16V 0.47U	1	
C2008	ECUM1H392KBN	C.CAPACITOR CH 50V 3900P	1	
C2009	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C2010	VCEA1HCB4R7	E.CAPACITOR 50V 4.7U	1	
C2011	ECUM1H222KBN	C.CAPACITOR CH 50V 2200P	1	
C2012	ECUM1H563KBN	C.CAPACITOR CH 50V 0.056U	1	
C2013	VCEA1HCB3R3	E.CAPACITOR 50V 3.3U	1	
C2501, 02	ECUM1H563KBN	C.CAPACITOR CH 50V 0.056U	2	
C2503	ECEA1VKN4R7	E.CAPACITOR 35V 4.7U	1	
C2504	VCEA1ECB470	E.CAPACITOR 25V 47U	1	
C2505	ECEA1VKN4R7	E.CAPACITOR 35V 4.7U	1	
C2506	VCEA0JCB221	E.CAPACITOR 6.3V 220U	1	
C2507	ECUM1H473ZFN	C.CAPACITOR CH 50V 0.047U	1	
C2508	ECUM1C683KBN	C.CAPACITOR CH 16V 0.068U	1	
C2509-11	ECUM1C154KBN	C.CAPACITOR CH 16V 0.15U	3	
C2512	ECEA1VKN4R7	E.CAPACITOR 35V 4.7U	1	
C3001	VCEA1CCB470	E.CAPACITOR 16V 47U	1	
C3003	VCEA0JEC471	E.CAPACITOR 6.3V 470U	1	
C3004	ECUM1H560JCN	C.CAPACITOR CH 50V 56P	1	
C3005	ECUM1E104KBN	C.CAPACITOR CH 25V 0.1U	1	
C3006	ECUM1H220JCN	C.CAPACITOR CH 50V 22P	1	
C3007	ECUM1H821JCN	C.CAPACITOR CH 50V 820P	1	
C3008	VCEA1HCB010	E.CAPACITOR 50V 1U	1	
C3009	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C3010	ECUM1H680JCN	C.CAPACITOR CH 50V 68P	1	
C3011	ECUM1H120JCN	C.CAPACITOR CH 50V 12P	1	
C3012	ECUM1E104KBN	C.CAPACITOR CH 25V 0.1U	1	
C3013	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3014	ECUM1E104KBN	C.CAPACITOR CH 25V 0.1U	1	
C3015	VCEA0JCB221	E.CAPACITOR 6.3V 220U	1	
C3016	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C3017	VCEA1HCB010	E.CAPACITOR 50V 1U	1	
C3018	ECUM1H103KBN	C.CAPACITOR CH 50V 0.01U	1	
C3019	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C3020	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C3021	ECUM1E104KBN	C.CAPACITOR CH 25V 0.1U	1	
C3022	ECUM1H222KBN	C.CAPACITOR CH 50V 2200P	1	
C3024	ECUM1H221JCN	C.CAPACITOR CH 50V 220P	1	
C3026	VCEA1HCB3R3	E.CAPACITOR 50V 3.3U	1	
C3027	VCEA1HCBR33	E.CAPACITOR 50V 0.33U	1	
C3028	VCEA0JCB470	E.CAPACITOR 6.3V 47U	1	
C3029	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C3030	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C3031	VCEA0JCB220	E.CAPACITOR 6.3V 22U	1	
C3032	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3033	VCEA1HCBR47	E.CAPACITOR 50V 0.47U	1	
C3034	ECUM1H222KBN	C.CAPACITOR CH 50V 2200P	1	
C3035	VCEA1ECB4R7	E.CAPACITOR 25V 4.7U	1	
C3036	ECUM1H560JCN	C.CAPACITOR CH 50V 56P	1	
C3037	VCEA1ECB4R7	E.CAPACITOR 25V 4.7U	1	
C3038	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C3039	VCEA0JCB221	E.CAPACITOR 6.3V 220U	1	
C3040	VCEA1ECB4R7	E.CAPACITOR 25V 4.7U	1	
C3041	VCEA0JCB221	E.CAPACITOR 6.3V 220U	1	
C3042	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C3043	VCEA0JCB220	E.CAPACITOR 6.3V 22U	1	
C3044	ECUM1E563KBN	C.CAPACITOR CH 25V 0.056U	1	
C3045	VCEA1CCB100	E.CAPACITOR 16V 10U	1	
C3046	ECUM1H561JCN	C.CAPACITOR CH 50V 560P	1	
C3047	ECUM1H221JCN	C.CAPACITOR CH 50V 220P	1	
C3048, 49	ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	2	
C3051, 52	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C4001	ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C4002	ECUM1H822KBN	C.CAPACITOR CH 50V 8200P	1	
C4003	VCEA0JCB220	E.CAPACITOR 6.3V 22U	1	
C4004	ECUM1H182JCN	C.CAPACITOR CH 50V 1800P	1	
C4005	ECUM1H272KBN	C.CAPACITOR CH 50V 2700P	1	
C4006	VCEA1HCB010	E.CAPACITOR 50V 1U	1	
C4007	VCEA1ECB4R7	E.CAPACITOR 25V 4.7U	1	
C4008	ECUM1H822KBN	C.CAPACITOR CH 50V 8200P	1	
C4009	ECUM1E273KBN	C.CAPACITOR CH 25V 0.027U	1	
C4010	ECUM1H822KBN	C.CAPACITOR CH 50V 8200P	1	
C4011	VCEA1CCB100	E.CAPACITOR 16V 10U	1	
C4012	VCEA0JCB470	E.CAPACITOR 6.3V 47U	1	
C4013	VCEA0JCB220	E.CAPACITOR 6.3V 22U	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C4014,15	VCEA1HCBR33	E.CAPACITOR 50V 0.33U	2	
C4016	ECKF1H102KB	C.CAPACITOR 50V 1000P	1	
C4018	ECUM1H223KBN	C.CAPACITOR CH 50V 0.022U	1	
C4020	VCEA0JCB221	E.CAPACITOR 6.3V 220U	1	
C4021	ECQV1H154JM	P.CAPACITOR 50V 0.15U	1	
C4023	ECUM1H472KBN	C.CAPACITOR CH 50V 4700P	1	
C4024	ECQB1H333JF	P.CAPACITOR 50V 0.033U	1	
C4025	ECUM1H222KBN	C.CAPACITOR CH 50V 2200P	1	
C4026	ECUM1H223KBN	C.CAPACITOR CH 50V 0.022U	1	
C4027,28	VCEA0JCB470	E.CAPACITOR 6.3V 47U	2	
C4037	VCEA1HCBR33	E.CAPACITOR 50V 0.33U	1	
C4042	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C4078	VCEA0JCB470	E.CAPACITOR 6.3V 47U	1	
C4501	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C4502	ECA1CAK100X	E.CAPACITOR 16V 10U	1	
C4503	ECQB1H223JF	P.CAPACITOR 50V 0.022U	1	
C4504	ECQB1H472JF	P.CAPACITOR 50V 4700P	1	
C4506	VCEA1HCB4R7	E.CAPACITOR 50V 4.7U	1	
C4509,10	ECA0JAK101X	E.CAPACITOR 6.3V 100U	2	
C4511	ECA1HAK4R7	E.CAPACITOR 50V 4.7U	1	
C4512	VCEA0JAW330	E.CAPACITOR 6.3V 33U	1	
C4513	ECA0JAK101X	E.CAPACITOR 6.3V 100U	1	
C4514	ECUM1H223KBN	C.CAPACITOR CH 50V 0.022U	1	
C4515	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C4516	VCEA0JAW330	E.CAPACITOR 6.3V 33U	1	
C4517	ECA1CAK100X	E.CAPACITOR 16V 10U	1	
C4518	ECQB1H223JF	P.CAPACITOR 50V 0.022U	1	
C4519	ECQB1H472JF	P.CAPACITOR 50V 4700P	1	
C4520	VCEA0JCB470	E.CAPACITOR 6.3V 47U	1	
C4521,22	ECUM1H152KBN	C.CAPACITOR CH 50V 1500P	2	
C6002	ECUM1H221JCN	C.CAPACITOR CH 50V 220P	1	
C6003	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C6006,07	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	2	
C6009	ECUM1H221JCN	C.CAPACITOR CH 50V 220P	1	
C6010	ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C6012,13	ECUM1H101JCN	C.CAPACITOR CH 50V 100P	2	
C6015	ECUM1H150JCN	C.CAPACITOR CH 50V 15P	1	
C6016	ECUM1H180JCN	C.CAPACITOR CH 50V 18P	1	
C6017	ECUM1H100DCN	C.CAPACITOR CH 50V 10P	1	
C6018	ECUM1H180JCN	C.CAPACITOR CH 50V 18P	1	
C6019,20	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	2	
C6021	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C6023	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C6024	VCEA0JEC471	E.CAPACITOR 6.3V 470U	1	
C6031	ECUM1H330JCN	C.CAPACITOR CH 50V 33P	1	
C6033	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C7301	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C7302	VCEA0JAW101	E.CAPACITOR 6.3V 100U	1	
C7303	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C7304	VCEA0JAW101	E.CAPACITOR 6.3V 100U	1	
C7305,06	ECUX1H330JCV	C.CAPACITOR CH 50V 33P	2	
C7307	ECUX1H470JCV	C.CAPACITOR CH 50V 47P	1	
C7308	ECEA1HKA2R2	E.CAPACITOR 50V 2.2U	1	
C7311	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
C7312,13	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	2	
C7315	ECUM1E104KBN	C.CAPACITOR CH 25V 0.1U	1	
C7316	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C7317	VCEA1CAW100	E.CAPACITOR 16V 10U	1	
C7318	VCEA0JAW470	E.CAPACITOR 6.3V 47U	1	
C7319,20	VCEA1CAW100	E.CAPACITOR 16V 10U	2	
C7321	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C7322,23	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	2	
C7324-26	ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	3	
C7327	ECUM1C334KBN	C.CAPACITOR CH 16V 0.33U	1	
C7328	ECUM1E333KBN	C.CAPACITOR CH 25V 0.033U	1	
C7329	ECUX1H150JCV	C.CAPACITOR CH 50V 15P	1	
C7330	ECUX1H390JCV	C.CAPACITOR CH 50V 39P	1	
C7501	VCEA1HCB100	E.CAPACITOR 50V 10U	1	
C7502	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C7503	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C7505	ECUM1H120JCN	C.CAPACITOR CH 50V 12P	1	
C7603	ECUM1C224ZFN	C.CAPACITOR CH 16V 0.22U	1	
C7606	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C7608	VCEA1HCB100	E.CAPACITOR 50V 10U	1	
C7609	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C7611	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C7612	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C7613	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C7703	ECUM1H101JCN	C.CAPACITOR CH 50V 100P	1	
C7704	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C7705	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C7706	ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C7707	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C7708	ECUM1H222KBN	C.CAPACITOR CH 50V 2200P	1	
C7709	ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
D1001	MA4051N-M	DIODE	1	
D1002	1SS254	DIODE	1	
D1003	MA4120N-M	DIODE	1	
D1004	1SS254	DIODE	1	
D1005	MA4051N-M	DIODE	1	
D1006	1SS254	DIODE	1	
D2501	MA723VT	DIODE	1	
D2502	1SS254	DIODE	1	
D4001	1SS254	DIODE	1	
D4501-03	1SS254	DIODE	3	
D6001-03	RB441P	DIODE	3	
D6004,05	1SS254	DIODE	2	
D6006	SIR505S	DIODE	1	
D6007-10	1SS254	DIODE	4	
D7302	BB135	DIODE	1	
D7501	MA4180N	DIODE	1	
D7505	1SS254	DIODE	1	
D7601	MA4300N-M	DIODE	1	
DP7501	VSL0505	DISPLAY TUBE	1	
FL7301	VLF0633	FILTER	1	
IC1001	PQ20VB2E	IC	1	
IC2501	AN3811NK	IC	1	
IC3001	TDA9735HV2	IC	1	
IC4501	BH7803K	IC	1	
IC6001	PNA4611M02VT	IR RECEIVER UNIT	1	
IC6002	PST993D	IC	1	
IC6004,05	RPI354N	IC	2	
IC6007	MN101D02GMA	IC	1	
IC7301	TDA9874H	IC	1	
IC7302	PST7043	IC	1	
IC7501	M35502AFP	IC	1	
IC7701	MC74H4066F	IC	1	
⚠ IP1001,02	UNH000300A	IC PROTECTOR	2	
⚠ IP1003	VSF0015A025	IC PROTECTOR	1	
⚠ IP1004	UNH000300A	IC PROTECTOR	1	
JK3001	VJJ0559	RCA PIN JACK (6P)	1	
K1002	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
K2001	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
K4002,03	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	2	
K7301,02	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	2	
K7304	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	
K7602	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
K7701	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
L3002	VLQ0599J390	COIL 39UH	1	
L3003	VLQ0599J121	COIL 120UH	1	
L3004	VLQ0599J220	COIL 22UH	1	
L3005	VLQ0599J151	COIL 150UH	1	
L3006-11	VLQ0599J680	COIL 68UH	6	
L4001	VLQEL07F153J	COIL 15MH	1	
L4003	VLQ0599J121	COIL 120UH	1	
L4026	VLQ0599J121	COIL 120UH	1	
L7301	VLQ0599J3R3	COIL 3.3UH	1	
L7302	VLQ0599J1R0	COIL 1UH	1	
L7604,05	VLQ0599J330	COIL 33UH	2	
L7607	VLQ0599J100	COIL 10UH	1	
L7701	VLQ0599J680	COIL 68UH	1	
L7702	VLQ0599J100	COIL 10UH	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
LB4001	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
LB4004	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
LB6002	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
LB7301-04	VLP0150	COIL	4	
P1001	VJS3917A016W	CONNECTOR (FEMALE) 16P	1	
P2001	VJP3835A012	CONNECTOR (MALE) 12P	1	
P2501	VJS3537A009G	CONNECTOR (FEMALE) 9P	1	
P3001	VJS3537A016G	CONNECTOR (FEMALE) 16P	1	
P3002	VJS3478A005T	CONNECTOR (FEMALE) 5P	1	
P4001	VJS3537A006G	CONNECTOR (FEMALE) 6P	1	
P4002	VJS3837A002	CONNECTOR (FEMALE) 2P	1	
P6002	VJS3837A002	CONNECTOR (FEMALE) 2P	1	
PK7301	VJR0777B007W	CONNECTOR (MALE) 7P	1	
PK7302	VJR0777B006W	CONNECTOR (MALE) 6P	1	
Q1001	2SC3940A	TRANSISTOR	1	
Q1002,03	2SD1996	TRANSISTOR	2	
Q1005	2SD1996	TRANSISTOR	1	
Q1009	2SD602A	TRANSISTOR	1	
Q3002	2SB709A	TRANSISTOR	1	
Q4002	MSD602-R	TRANSISTOR	1	
Q4003	2SB1321	TRANSISTOR	1	
Q4004	MSD602-R	TRANSISTOR	1	
Q4005	2SD1149	TRANSISTOR	1	
Q4006	2SD601A	TRANSISTOR	1	
Q4009	MSB710-R	TRANSISTOR	1	
Q4501	MSD601-R	TRANSISTOR-RESISTOR	1	
Q4502	2SA1515	TRANSISTOR	1	
Q4503	MSD1328-R	TRANSISTOR	1	
Q6001	PNB2301MBV	TRANSISTOR	1	
Q6002	PNB2301MAV	TRANSISTOR	1	
Q7701	2SB709A	TRANSISTOR	1	
QR1011	MUN2112	TRANSISTOR-RESISTOR	1	
QR3003,04	MUN2213	TRANSISTOR-RESISTOR	2	
QR3006	MUN2213	TRANSISTOR-RESISTOR	1	
QR4004	MUN2111	TRANSISTOR-RESISTOR	1	
QR4501	MUN2212	TRANSISTOR-RESISTOR	1	
QR6001	MUN2211	TRANSISTOR-RESISTOR	1	
R1001	ERDS2TJ561	C.RESISTOR 1/4W 560	1	
R1002	ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R1004	ERJ6GMYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R1010	ERJ6GMYG683	M.RESISTOR CH 1/10W 68K	1	
R1011	ERJ6GMYG752	M.RESISTOR CH 1/10W 7.5K	1	
R1012	ERJ6GMYG433	M.RESISTOR CH 1/10W 43K	1	
R1013,14	ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	2	
R1018,19	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	2	
R1022	ERDS2TJ561	C.RESISTOR 1/4W 560	1	
R2001	ERJ6GMYJ392	M.RESISTOR CH 1/10W 3.9K	1	
R2002	ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R2003	ERJ6GMYJ273	M.RESISTOR CH 1/10W 27K	1	
R2004	ERJ6GMYG393	M.RESISTOR CH 1/10W 39K	1	
R2501	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R2502,03	ERDS2TJ330	C.RESISTOR 1/4W 33	2	
R2504	ERDS2TJ1R2	C.RESISTOR 1/4W 1.2	1	
R2505	ERDS2TJ331	C.RESISTOR 1/4W 330	1	
R2506	ERDS2TJ1R5	C.RESISTOR 1/4W 1.5	1	
R2507	ERDS2TJ330	C.RESISTOR 1/4W 33	1	
R3001	ERDS2TJ471	C.RESISTOR 1/4W 470	1	
R3003	ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R3004	ERJ6GMYJ471	M.RESISTOR CH 1/10W 470	1	
R3005	ERJ6GMYJ331	M.RESISTOR CH 1/10W 330	1	
R3007	ERJ6GMYJ750	M.RESISTOR CH 1/10W 75	1	
R3008	ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R3009	ERJ6GMYJ750	M.RESISTOR CH 1/10W 75	1	
R3011	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R3012	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R3013	ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R3017	ERJ6GMYJ333	M.RESISTOR CH 1/10W 33K	1	
R3018	ERJ6GMYG301	M.RESISTOR CH 1/10W 300	1	
R3019	ERJ6GMYJ472	M.RESISTOR CH 1/10W 4.7K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R3021	ERJ6GMYJ183	M.RESISTOR CH 1/10W 18K	1	
R3022	ERJ6GMYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R3023	ERJ6GMYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R3024	ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R3025	ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R3026	ERJ6GMYJ684	M.RESISTOR CH 1/10W 680K	1	
R3027	ERJ6GMYJ224	M.RESISTOR CH 1/10W 220K	1	
R3028	ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R3029	ERJ6GMYJ331	M.RESISTOR CH 1/10W 330	1	
R3030,31	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	2	
R3032	ERJ6GMYJ271	M.RESISTOR CH 1/10W 270	1	
R3033,34	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	2	
R3037	ERJ6GMYJ822	M.RESISTOR CH 1/10W 8.2K	1	
R3038	ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	1	
R3039	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R3040	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R3043	ERJ6GMYJ821	M.RESISTOR CH 1/10W 820	1	
R3055	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R4001	ERJ6GMYJ334	M.RESISTOR CH 1/10W 330K	1	
R4002	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R4003	ERJ6GMYJ241	M.RESISTOR CH 1/10W 240	1	
R4004	ERJ6GMYJ273	M.RESISTOR CH 1/10W 27K	1	
R4005	ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R4006	ERJ6GMYJ163	M.RESISTOR CH 1/10W 16K	1	
R4007	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R4008	ERJ6GMYJ391	M.RESISTOR CH 1/10W 390	1	
R4009	ERJ6GMYJ331	M.RESISTOR CH 1/10W 330	1	
R4010	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R4011	ERJ6GMYK225	M.RESISTOR CH 1/10W 2.2M	1	
R4012	ERJ6GMYJ393	M.RESISTOR CH 1/10W 39K	1	
R4013	ERJ6GMYJ183	M.RESISTOR CH 1/10W 18K	1	
R4014	ERJ6GMYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R4015	ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R4016	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R4017	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R4019,20	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	2	
R4023	ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R4024	ERJ6GMYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R4025	ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R4027,28	ERJ6GMYJ472	M.RESISTOR CH 1/10W 4.7K	2	
R4029	ERJ6GMYJ682	M.RESISTOR CH 1/10W 6.8K	1	
R4030	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R4031	ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R4032,33	ERJ6GMYJ822	M.RESISTOR CH 1/10W 8.2K	2	
R4035	ERJ6GMYJ183	M.RESISTOR CH 1/10W 18K	1	
R4037	ERJ6GMYJ471	M.RESISTOR CH 1/10W 470	1	
R4058	ERJ6GMYJ682	M.RESISTOR CH 1/10W 6.8K	1	
R4063	ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R4501,02	ERJ6GMYJ513	M.RESISTOR CH 1/10W 51K	2	
R4503,04	ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	2	
R4505	ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R4506,07	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	2	
R4508	ERDS2TJ471	C.RESISTOR 1/4W 470	1	
R4510	ERDS2TJ471	C.RESISTOR 1/4W 470	1	
R4513-16	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	4	
R4517	ERJ6GMYJ393	M.RESISTOR CH 1/10W 39K	1	
R4518	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R4519	ERJ6GMYJ393	M.RESISTOR CH 1/10W 39K	1	
R4520	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R4521	ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R4522	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R4523	ERJ6GMYJ393	M.RESISTOR CH 1/10W 39K	1	
R4524	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R4527,28	ERJ6RBD273	M.RESISTOR CH 1/10W 27K	2	
R4529	ERJ6GMYJ393	M.RESISTOR CH 1/10W 39K	1	
R4530	ERJ6GMYK225	M.RESISTOR CH 1/10W 2.2M	1	
R6001	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R6002	ERJ6GMYJ393	M.RESISTOR CH 1/10W 39K	1	
R6003	ERJ6GMYJ273	M.RESISTOR CH 1/10W 27K	1	
R6004	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R6005	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R6006,07	ERJ6GMYJ273	M.RESISTOR CH 1/10W 27K	2	
R6008	ERDS2TJ181	C.RESISTOR 1/4W 180	1	
R6009	ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R6010	ERJ6GMYJ272	M.RESISTOR CH 1/10W 2.7K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R6011	ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R6012	ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R6013	ERJ6GMYJ123	M.RESISTOR CH 1/10W 12K	1	
R6014	ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R6015	ERJ6GMYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R6017, 18	ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	2	
R6020	ERJ6GMZOR00	M.RESISTOR CH 1/10W 0	1	
R6021	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R6023, 24	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	2	
R6027	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R6028	ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R6029	ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R6030	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R6031	ERJ6GMYJ105	M.RESISTOR CH 1/10W 1M	1	
R6033	ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	1	
R6035	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R6039	ERJ6GMZOR00	M.RESISTOR CH 1/10W 0	1	
R6041	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R6044	ERDS2TJ121	C.RESISTOR 1/4W 120	1	
R6045	ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R6052, 53	ERJ6GMZOR00	M.RESISTOR CH 1/10W 0	2	
R6055	ERJ6GMYJ334	M.RESISTOR CH 1/10W 330K	1	
R7302	ERJ3GEYOR00	M.RESISTOR CH 1/16W 0	1	
R7305, 06	ERJ6GEYJ101	M.RESISTOR CH 1/10W 100	2	
R7316	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R7318	ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R7324	ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	
R7325	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R7326	ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	
R7327	ERJ3GEYJ822	M.RESISTOR CH 1/16W 8.2K	1	
R7328, 29	ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	2	
R7501	ERJ6GMYG114	M.RESISTOR CH 1/10W 110K	1	
R7502	ERJ6GMYG202	M.RESISTOR CH 1/10W 2K	1	
R7504	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R7505	ERJ6GMYG363	M.RESISTOR CH 1/10W 36K	1	
R7507, 08	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	2	
R7509	ERJ6GMYG182	M.RESISTOR CH 1/10W 1.8K	1	
R7510	ERDS2TJ180	C.RESISTOR 1/4W 18	1	
R7512, 13	ERJ6GMYG123	M.RESISTOR CH 1/10W 12K	2	
R7514	ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	1	
R7516	ERDS2TJ102	C.RESISTOR 1/4W 1K	1	
R7518	ERDS2TJ150	C.RESISTOR 1/4W 15	1	
R7519	ERJ6GMYG512	M.RESISTOR CH 1/10W 5.1K	1	
R7520	ERJ6GMYG392	M.RESISTOR CH 1/10W 3.9K	1	
R7521	ERJ6GMYG242	M.RESISTOR CH 1/10W 2.4K	1	
R7522	ERJ6GMYG332	M.RESISTOR CH 1/10W 3.3K	1	
R7523	ERJ6GMYG362	M.RESISTOR CH 1/10W 3.6K	1	
R7524	ERJ6GMYG472	M.RESISTOR CH 1/10W 4.7K	1	
R7526	ERJ6GMYG912	M.RESISTOR CH 1/10W 9.1K	1	
R7529	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R7604	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R7605, 06	ERG2SJ331	M.RESISTOR 2W 330	2	
R7608	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R7611-14	ERJ6GMZOR00	M.RESISTOR CH 1/10W 0	4	
R7701	ERJ6GMYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R7702, 03	ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	2	
R7704	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R7705, 06	ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	2	
R7707	ERJ6GMYJ224	M.RESISTOR CH 1/10W 220K	1	
R7708	ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R7709	ERJ6GMYJ224	M.RESISTOR CH 1/10W 220K	1	
S6001	VES0834	S-TAB SWITCH	1	
S6002	VSS0520	MODE SELECT SWITCH	1	
S7501-08	EVQ11L07B	SWITCH	8	
T4001	EQQ7QF025Q	TRANSFORMER	1	
T4002	EQQ7QF026Q	TRANSFORMER	1	
⚠ TU7601	ENG57807G1	TUNER	1	
X3001	VSX0162	CRYSTAL OSCILLATOR	1	
X3002	VSX0160	CRYSTAL OSCILLATOR	1	
X6001	VSX0660	CRYSTAL OSCILLATOR	1	
X6002	VSX0365	CRYSTAL OSCILLATOR	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
X7302	VSX0953	CRYSTAL OSCILLATOR	1	
		MISCELLANEOUS		
	VXQ0648	FIP HOLDER	1	
	VSC4753	SHIELD CASE (BOTTOM)	1	FOR NICAM DECODER C.B.A.
	VSC4752	SHIELD CASE (MAIN)	1	FOR NICAM DECODER C.B.A.
■	VEP06C93D	MAIN C.B.A.		(RTL)
				NV-HD640AM/EU
B6001	CR2354-1GUF	LITHIUM BATTERY	1	
C1001	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C1002	VCEA0JCB220	E.CAPACITOR 6.3V 22U	1	
C1003	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C1004	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C1005	VCEA1CCB470	E.CAPACITOR 16V 47U	1	
C1007	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C1008	VCEA0JBS470	E.CAPACITOR 6.3V 47U	1	
C1009	VCEA0JBS101	E.CAPACITOR 6.3V 100U	1	
C1011	VCEA1ECB470	E.CAPACITOR 25V 47U	1	
C1014	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C1015	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C2001	ECEA1CKN220	E.CAPACITOR 16V 22U	1	
C2006	ECUM1C474KBN	C.CAPACITOR CH 16V 0.47U	1	
C2008	ECUM1H392KBN	C.CAPACITOR CH 50V 3900P	1	
C2009	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C2010	VCEA1HCB4R7	E.CAPACITOR 50V 4.7U	1	
C2011	ECUM1H222KBN	C.CAPACITOR CH 50V 2200P	1	
C2012	ECUM1H563KBN	C.CAPACITOR CH 50V 0.056U	1	
C2013	VCEA1HCB3R3	E.CAPACITOR 50V 3.3U	1	
C2501, 02	ECUM1H563KBN	C.CAPACITOR CH 50V 0.056U	2	
C2503	ECEA1VKN4R7	E.CAPACITOR 35V 4.7U	1	
C2504	VCEA1ECB470	E.CAPACITOR 25V 47U	1	
C2505	ECEA1VKN4R7	E.CAPACITOR 35V 4.7U	1	
C2506	VCEA0JCB221	E.CAPACITOR 6.3V 220U	1	
C2507	ECUM1H473ZFN	C.CAPACITOR CH 50V 0.047U	1	
C2508	ECUM1C683KBN	C.CAPACITOR CH 16V 0.068U	1	
C2509-11	ECUM1C154KBN	C.CAPACITOR CH 16V 0.15U	3	
C2512	ECEA1VKN4R7	E.CAPACITOR 35V 4.7U	1	
C3001	VCEA1CCB470	E.CAPACITOR 16V 47U	1	
C3003	VCEA0JEC471	E.CAPACITOR 6.3V 470U	1	
C3004	ECUM1H560JCN	C.CAPACITOR CH 50V 56P	1	
C3005	ECUM1E104KBN	C.CAPACITOR CH 25V 0.1U	1	
C3006	ECUM1H220JCN	C.CAPACITOR CH 50V 22P	1	
C3007	ECUM1H821JCN	C.CAPACITOR CH 50V 820P	1	
C3008	VCEA1HCB010	E.CAPACITOR 50V 1U	1	
C3009	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C3010	ECUM1H680JCN	C.CAPACITOR CH 50V 68P	1	
C3011	ECUM1H120JCN	C.CAPACITOR CH 50V 12P	1	
C3012	ECUM1E104KBN	C.CAPACITOR CH 25V 0.1U	1	
C3013	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3014	ECUM1E104KBN	C.CAPACITOR CH 25V 0.1U	1	
C3015	VCEA0JCB221	E.CAPACITOR 6.3V 220U	1	
C3016	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C3017	VCEA1HCB010	E.CAPACITOR 50V 1U	1	
C3018	ECUM1H103KBN	C.CAPACITOR CH 50V 0.01U	1	
C3019	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C3020	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C3021	ECUM1E104KBN	C.CAPACITOR CH 25V 0.1U	1	
C3022	ECUM1H222KBN	C.CAPACITOR CH 50V 2200P	1	
C3023	VCEA0JEC471	E.CAPACITOR 6.3V 470U	1	
C3024	ECUM1H221JCN	C.CAPACITOR CH 50V 220P	1	
C3026	VCEA1HCB3R3	E.CAPACITOR 50V 3.3U	1	
C3027	VCEA1HCBR33	E.CAPACITOR 50V 0.33U	1	
C3028	VCEA0JCB470	E.CAPACITOR 6.3V 47U	1	
C3029	ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C3030	VCEA0JCB101	E.CAPACITOR 6.3V 100U	1	
C3031	VCEA0JCB220	E.CAPACITOR 6.3V 22U	1	
C3032	ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3033	VCEA1HCBR47	E.CAPACITOR 50V 0.47U	1	
C3034	ECUM1H222KBN	C.CAPACITOR CH 50V 2200P	1	
C3035	VCEA1ECB4R7	E.CAPACITOR 25V 4.7U	1	
C3036	ECUM1H560JCN	C.CAPACITOR CH 50V 56P	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C3037	VCEA1ECB4R7	E. CAPACITOR 25V 4. 7U	1	
C3038	ECUM1H104ZFN	C. CAPACITOR CH 50V 0. 1U	1	
C3039	VCEA0JCB221	E. CAPACITOR 6. 3V 220U	1	
C3040	VCEA1ECB4R7	E. CAPACITOR 25V 4. 7U	1	
C3041	VCEA0JCB221	E. CAPACITOR 6. 3V 220U	1	
C3042	ECUM1H104ZFN	C. CAPACITOR CH 50V 0. 1U	1	
C3043	VCEA0JCB220	E. CAPACITOR 6. 3V 22U	1	
C3044	ECUM1E563KBN	C. CAPACITOR CH 25V 0. 056U	1	
C3045	VCEA1CCB100	E. CAPACITOR 16V 10U	1	
C3046	ECUM1H561JCN	C. CAPACITOR CH 50V 560P	1	
C3047	ECUM1H221JCN	C. CAPACITOR CH 50V 220P	1	
C3048, 49	ECUM1H102KBN	C. CAPACITOR CH 50V 1000P	2	
C3051, 52	ECUM1H103ZFN	C. CAPACITOR CH 50V 0. 01U	2	
C3053	VCEA1CCB470	E. CAPACITOR 16V 47U	1	
C3057	ECUM1H104ZFN	C. CAPACITOR CH 50V 0. 1U	1	
C4001	ECUM1C105ZFN	C. CAPACITOR CH 16V 1U	1	
C4002	ECUM1H822KBN	C. CAPACITOR CH 50V 8200P	1	
C4003	VCEA0JCB220	E. CAPACITOR 6. 3V 22U	1	
C4004	ECUM1H182JCN	C. CAPACITOR CH 50V 1800P	1	
C4005	ECUM1H272KBN	C. CAPACITOR CH 50V 2700P	1	
C4006	VCEA1HCB010	E. CAPACITOR 50V 1U	1	
C4007	VCEA1ECB4R7	E. CAPACITOR 25V 4. 7U	1	
C4008	ECUM1H822KBN	C. CAPACITOR CH 50V 8200P	1	
C4009	ECUM1E273KBN	C. CAPACITOR CH 25V 0. 027U	1	
C4010	ECUM1H822KBN	C. CAPACITOR CH 50V 8200P	1	
C4011	VCEA1CCB100	E. CAPACITOR 16V 10U	1	
C4012	VCEA0JCB470	E. CAPACITOR 6. 3V 47U	1	
C4013	VCEA0JCB220	E. CAPACITOR 6. 3V 22U	1	
C4014, 15	VCEA1HCBR33	E. CAPACITOR 50V 0. 33U	2	
C4016	ECKF1H102KB	C. CAPACITOR 50V 1000P	1	
C4018	ECUM1H223KBN	C. CAPACITOR CH 50V 0. 022U	1	
C4019	ECUM1H471JCN	C. CAPACITOR CH 50V 470P	1	
C4020	VCEA0JCB221	E. CAPACITOR 6. 3V 220U	1	
C4021	ECQV1H154JM	P. CAPACITOR 50V 0. 15U	1	
C4022	ECUM1H471JCN	C. CAPACITOR CH 50V 470P	1	
C4023	ECUM1H472KBN	C. CAPACITOR CH 50V 4700P	1	
C4024	ECQB1H333JF	P. CAPACITOR 50V 0. 033U	1	
C4025	ECUM1H222KBN	C. CAPACITOR CH 50V 2200P	1	
C4026	ECUM1H223KBN	C. CAPACITOR CH 50V 0. 022U	1	
C4027, 28	VCEA0JCB470	E. CAPACITOR 6. 3V 47U	2	
C4029	ECUM1H471JCN	C. CAPACITOR CH 50V 470P	1	
C4033	ECUM1H470JCN	C. CAPACITOR CH 50V 47P	1	
C4035	ECUM1H470JCN	C. CAPACITOR CH 50V 47P	1	
C4037	VCEA1HCBR33	E. CAPACITOR 50V 0. 33U	1	
C4039	ECUM1H471JCN	C. CAPACITOR CH 50V 470P	1	
C4041	ECUM1H471JCN	C. CAPACITOR CH 50V 470P	1	
C4042	ECUM1H103ZFN	C. CAPACITOR CH 50V 0. 01U	1	
C4073	ECUM1H471JCN	C. CAPACITOR CH 50V 470P	1	
C4078	VCEA0JCB470	E. CAPACITOR 6. 3V 47U	1	
C4501	ECUM1H103ZFN	C. CAPACITOR CH 50V 0. 01U	1	
C4502	ECA1CAK100X	E. CAPACITOR 16V 10U	1	
C4503	ECQB1H223JF	P. CAPACITOR 50V 0. 022U	1	
C4504	ECQB1H472JF	P. CAPACITOR 50V 4700P	1	
C4506	VCEA1HCB4R7	E. CAPACITOR 50V 4. 7U	1	
C4509, 10	ECA0JAK101X	E. CAPACITOR 6. 3V 100U	2	
C4511	ECA1HAK4R7	E. CAPACITOR 50V 4. 7U	1	
C4512	VCEA0JAW330	E. CAPACITOR 6. 3V 33U	1	
C4513	ECA0JAK101X	E. CAPACITOR 6. 3V 100U	1	
C4514	ECUM1H223KBN	C. CAPACITOR CH 50V 0. 022U	1	
C4515	ECUM1H103ZFN	C. CAPACITOR CH 50V 0. 01U	1	
C4516	VCEA0JAW330	E. CAPACITOR 6. 3V 33U	1	
C4517	ECA1CAK100X	E. CAPACITOR 16V 10U	1	
C4518	ECQB1H223JF	P. CAPACITOR 50V 0. 022U	1	
C4519	ECQB1H472JF	P. CAPACITOR 50V 4700P	1	
C4520	VCEA0JCB470	E. CAPACITOR 6. 3V 47U	1	
C4521, 22	ECUM1H152KBN	C. CAPACITOR CH 50V 1500P	2	
C4524, 25	ECUM1H104ZFN	C. CAPACITOR CH 50V 0. 1U	2	
C6002	ECUM1H221JCN	C. CAPACITOR CH 50V 220P	1	
C6003	ECUM1H104ZFN	C. CAPACITOR CH 50V 0. 1U	1	
C6006, 07	ERJ6GMZ0R00	M. RESISTOR CH 1/10W 0	2	
C6009	ECUM1H221JCN	C. CAPACITOR CH 50V 220P	1	
C6010	ECUM1H102KBN	C. CAPACITOR CH 50V 1000P	1	
C6012, 13	ECUM1H101JCN	C. CAPACITOR CH 50V 100P	2	
C6015	ECUM1H150JCN	C. CAPACITOR CH 50V 15P	1	
C6016	ECUM1H180JCN	C. CAPACITOR CH 50V 18P	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C6017	ECUM1H100DCN	C. CAPACITOR CH 50V 10P	1	
C6018	ECUM1H180JCN	C. CAPACITOR CH 50V 18P	1	
C6019, 20	ECUM1H104ZFN	C. CAPACITOR CH 50V 0. 1U	2	
C6021	VCEA0JCB101	E. CAPACITOR 6. 3V 100U	1	
C6023	ECUM1H104ZFN	C. CAPACITOR CH 50V 0. 1U	1	
C6024	VCEA0JEC471	E. CAPACITOR 6. 3V 470U	1	
C6031	ECUM1H330JCN	C. CAPACITOR CH 50V 33P	1	
C6033	ECUM1H103ZFN	C. CAPACITOR CH 50V 0. 01U	1	
C7501	VCEA1HCB100	E. CAPACITOR 50V 10U	1	
C7502	ECUM1H104ZFN	C. CAPACITOR CH 50V 0. 1U	1	
C7503	VCEA0JCB101	E. CAPACITOR 6. 3V 100U	1	
C7505	ECUM1H120JCN	C. CAPACITOR CH 50V 12P	1	
C7603	ECUM1C224ZFN	C. CAPACITOR CH 16V 0. 22U	1	
C7606	ECUM1H103ZFN	C. CAPACITOR CH 50V 0. 01U	1	
C7608	VCEA1HCB100	E. CAPACITOR 50V 10U	1	
C7611	VCEA0JCB101	E. CAPACITOR 6. 3V 100U	1	
C7612	ECUM1H103ZFN	C. CAPACITOR CH 50V 0. 01U	1	
C7613	VCEA0JCB101	E. CAPACITOR 6. 3V 100U	1	
C7616, 17	ECUM1H104ZFN	C. CAPACITOR CH 50V 0. 1U	2	
C7703	ECUM1H101JCN	C. CAPACITOR CH 50V 100P	1	
C7704	VCEA0JCB101	E. CAPACITOR 6. 3V 100U	1	
C7705	ECUM1H104ZFN	C. CAPACITOR CH 50V 0. 1U	1	
C7706	ECUM1H102KBN	C. CAPACITOR CH 50V 1000P	1	
C7707	ECUM1H103ZFN	C. CAPACITOR CH 50V 0. 01U	1	
C7708	ECUM1H222KBN	C. CAPACITOR CH 50V 2200P	1	
C7709	ECUM1C105ZFN	C. CAPACITOR CH 16V 1U	1	
D1001	MA4051N-M	DIODE	1	
D1002	1SS254	DIODE	1	
D1003	MA4120N-M	DIODE	1	
D1004	1SS254	DIODE	1	
D1005	MA4051N-M	DIODE	1	
D1006	1SS254	DIODE	1	
D2501	MA723VT	DIODE	1	
D2502	1SS254	DIODE	1	
D3001	1SS254	DIODE	1	
D4001	1SS254	DIODE	1	
D4501-03	1SS254	DIODE	3	
D6001-03	RB441P	DIODE	3	
D6004, 05	1SS254	DIODE	2	
D6006	SIR505S	DIODE	1	
D6007-10	1SS254	DIODE	4	
D7501	MA4180N	DIODE	1	
D7505	1SS254	DIODE	1	
D7601	MA4300N-M	DIODE	1	
DP7501	VSL0505	DISPLAY TUBE	1	
IC1001	PQ20VB2E	IC	1	
IC2501	AN3811NK	IC	1	
IC3001	TDA9735HV2	IC	1	
IC4501	BH7803K	IC	1	
IC6001	PNA4611M02VT	IR RECEIVER UNIT	1	
IC6002	PST993D	IC	1	
IC6004, 05	RPI354N	IC	2	
IC6007	MN101D02GMA	IC	1	
IC7501	M35502AFP	IC	1	
IC7701	MC74H4066F	IC	1	
⚠ IP1001, 02	UNH000300A	IC PROTECTOR	2	
⚠ IP1003	VSF0015A025	IC PROTECTOR	1	
⚠ IP1004	UNH000300A	IC PROTECTOR	1	
JK3001	VJJ0652	RCA PIN JACK (3-PIN)	1	
JK3002	VJS3544	CONNECTOR (FEMALE) 21P	1	
K1002	ERJ6GMZ0R00	M. RESISTOR CH 1/10W 0	1	
K2001	ERJ6GMZ0R00	M. RESISTOR CH 1/10W 0	1	
K3003	ERJ6GMZ0R00	M. RESISTOR CH 1/10W 0	1	
K4002, 03	ERJ6GMZ0R00	M. RESISTOR CH 1/10W 0	2	
K4007, 08	ERJ6GMZ0R00	M. RESISTOR CH 1/10W 0	2	
K4504	ERJ6GMZ0R00	M. RESISTOR CH 1/10W 0	1	
K7602	ERJ6GMZ0R00	M. RESISTOR CH 1/10W 0	1	
K7701	ERJ6GMZ0R00	M. RESISTOR CH 1/10W 0	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
L3002	VLQ0599J390	COIL 39UH	1	
L3003	VLQ0599J121	COIL 120UH	1	
L3004	VLQ0599J220	COIL 22UH	1	
L3005	VLQ0599J151	COIL 150UH	1	
L3006-11	VLQ0599J680	COIL 68UH	6	
L4001	VLQEL07F153J	COIL 15MH	1	
L4003	VLQ0599J121	COIL 120UH	1	
L4026	VLQ0599J121	COIL 120UH	1	
L7601	VLQ0599J330	COIL 33UH	1	
L7604, 05	VLQ0599J330	COIL 33UH	2	
L7608	VLP0125	COIL	1	
L7701	VLQ0599J680	COIL 68UH	1	
L7702	VLQ0599J100	COIL 10UH	1	
LB4001-05	VLP0147	COIL	5	
LB6002	ERJ6GMZ0R00	M. RESISTOR CH 1/10W 0	1	
P1001	VJS3917A016W	CONNECTOR (FEMALE) 16P	1	
P2001	VJP3835A012	CONNECTOR (MALE) 12P	1	
P2501	VJS3537A009G	CONNECTOR (FEMALE) 9P	1	
P3001	VJS3537A016G	CONNECTOR (FEMALE) 16P	1	
P3002	VJS3478A005T	CONNECTOR (FEMALE) 5P	1	
P4001	VJS3537A006G	CONNECTOR (FEMALE) 6P	1	
P4002	VJS3837A002	CONNECTOR (FEMALE) 2P	1	
P6002	VJS3837A002	CONNECTOR (FEMALE) 2P	1	
Q1001	2SC3940A	TRANSISTOR	1	
Q1002, 03	2SD1996	TRANSISTOR	2	
Q1005	2SD1996	TRANSISTOR	1	
Q1009	2SD602A	TRANSISTOR	1	
Q3001, 02	2SB709A	TRANSISTOR	2	
Q4002	MSD602-R	TRANSISTOR	1	
Q4003	2SB1321	TRANSISTOR	1	
Q4004	MSD602-R	TRANSISTOR	1	
Q4005	2SD1149	TRANSISTOR	1	
Q4006	2SD601A	TRANSISTOR	1	
Q4009	MSB710-R	TRANSISTOR	1	
Q4501	MSD601-R	TRANSISTOR-RESISTOR	1	
Q4502	2SA1515	TRANSISTOR	1	
Q4503	MSD1328-R	TRANSISTOR	1	
Q6001	PNB2301MBV	TRANSISTOR	1	
Q6002	PNB2301MAV	TRANSISTOR	1	
Q7701	2SB709A	TRANSISTOR	1	
QR1011	MUN2112	TRANSISTOR-RESISTOR	1	
QR3001	MUN2111	TRANSISTOR-RESISTOR	1	
QR3002	MUN2212	TRANSISTOR-RESISTOR	1	
QR3003, 04	MUN2213	TRANSISTOR-RESISTOR	2	
QR3006	MUN2213	TRANSISTOR-RESISTOR	1	
QR4004	MUN2111	TRANSISTOR-RESISTOR	1	
QR4501	MUN2212	TRANSISTOR-RESISTOR	1	
QR6001	MUN2211	TRANSISTOR-RESISTOR	1	
R1001	ERDS2TJ561	C. RESISTOR 1/4W 560	1	
R1002	ERDS2TJ103	C. RESISTOR 1/4W 10K	1	
R1004	ERJ6GMYJ182	M. RESISTOR CH 1/10W 1.8K	1	
R1010	ERJ6GMYG683	M. RESISTOR CH 1/10W 68K	1	
R1011	ERJ6GMYG752	M. RESISTOR CH 1/10W 7.5K	1	
R1012	ERJ6GMYG433	M. RESISTOR CH 1/10W 43K	1	
R1013, 14	ERJ6GMYJ562	M. RESISTOR CH 1/10W 5.6K	2	
R1018, 19	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	2	
R1022	ERDS2TJ561	C. RESISTOR 1/4W 560	1	
R2001	ERJ6GMYJ392	M. RESISTOR CH 1/10W 3.9K	1	
R2002	ERJ6GMYJ222	M. RESISTOR CH 1/10W 2.2K	1	
R2003	ERJ6GMYJ273	M. RESISTOR CH 1/10W 27K	1	
R2004	ERJ6GMYG393	M. RESISTOR CH 1/10W 39K	1	
R2501	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	1	
R2502, 03	ERDS2TJ330	C. RESISTOR 1/4W 33	2	
R2504	ERDS2TJ1R2	C. RESISTOR 1/4W 1.2	1	
R2505	ERDS2TJ331	C. RESISTOR 1/4W 330	1	
R2506	ERDS2TJ1R5	C. RESISTOR 1/4W 1.5	1	
R2507	ERDS2TJ330	C. RESISTOR 1/4W 33	1	
R3001	ERDS2TJ471	C. RESISTOR 1/4W 470	1	
R3002	ERJ6GMYJ471	M. RESISTOR CH 1/10W 470	1	
R3003	ERJ6GMYJ223	M. RESISTOR CH 1/10W 22K	1	
R3004	ERJ6GMYJ471	M. RESISTOR CH 1/10W 470	1	
R3005	ERJ6GMYJ331	M. RESISTOR CH 1/10W 330	1	
R3006	ERDS2TJ471	C. RESISTOR 1/4W 470	1	
R3008	ERJ6GMYJ222	M. RESISTOR CH 1/10W 2.2K	1	
R3009, 10	ERJ6GMYJ750	M. RESISTOR CH 1/10W 75	2	
R3011	ERJ6GMYJ102	M. RESISTOR CH 1/10W 1K	1	
R3012	ERJ6GMYJ221	M. RESISTOR CH 1/10W 220	1	
R3013	ERJ6GMYJ152	M. RESISTOR CH 1/10W 1.5K	1	
R3014	ERJ6GMYJ750	M. RESISTOR CH 1/10W 75	1	
R3015	ERJ6GMYJ104	M. RESISTOR CH 1/10W 100K	1	
R3016	ERJ6GMYJ561	M. RESISTOR CH 1/10W 560	1	
R3017	ERJ6GMYJ333	M. RESISTOR CH 1/10W 33K	1	
R3018	ERJ6GMYG301	M. RESISTOR CH 1/10W 300	1	
R3019	ERJ6GMYJ472	M. RESISTOR CH 1/10W 4.7K	1	
R3021	ERJ6GMYJ183	M. RESISTOR CH 1/10W 18K	1	
R3022	ERJ6GMYJ182	M. RESISTOR CH 1/10W 1.8K	1	
R3023	ERJ6GMYJ272	M. RESISTOR CH 1/10W 2.7K	1	
R3024	ERJ6GMYJ152	M. RESISTOR CH 1/10W 1.5K	1	
R3025	ERJ6GMYJ473	M. RESISTOR CH 1/10W 47K	1	
R3026	ERJ6GMYJ684	M. RESISTOR CH 1/10W 680K	1	
R3027	ERJ6GMYJ224	M. RESISTOR CH 1/10W 220K	1	
R3028	ERJ6GMYJ152	M. RESISTOR CH 1/10W 1.5K	1	
R3029	ERJ6GMYJ331	M. RESISTOR CH 1/10W 330	1	
R3030, 31	ERJ6GMYJ102	M. RESISTOR CH 1/10W 1K	2	
R3032	ERJ6GMYJ271	M. RESISTOR CH 1/10W 270	1	
R3033, 34	ERJ6GMZ0R00	M. RESISTOR CH 1/10W 0	2	
R3037	ERJ6GMYJ822	M. RESISTOR CH 1/10W 8.2K	1	
R3038	ERJ6GMYJ104	M. RESISTOR CH 1/10W 100K	1	
R3039	ERJ6GMYJ221	M. RESISTOR CH 1/10W 220	1	
R3040	ERJ6GMYJ102	M. RESISTOR CH 1/10W 1K	1	
R3043	ERJ6GMYJ821	M. RESISTOR CH 1/10W 820	1	
R3055	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	1	
R4001	ERJ6GMYJ334	M. RESISTOR CH 1/10W 330K	1	
R4002	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	1	
R4003	ERJ6GMYJ241	M. RESISTOR CH 1/10W 240	1	
R4004	ERJ6GMYJ273	M. RESISTOR CH 1/10W 27K	1	
R4005	ERJ6GMYJ473	M. RESISTOR CH 1/10W 47K	1	
R4006	ERJ6GMYJ163	M. RESISTOR CH 1/10W 16K	1	
R4007	ERJ6GMYJ102	M. RESISTOR CH 1/10W 1K	1	
R4008	ERJ6GMYJ391	M. RESISTOR CH 1/10W 390	1	
R4009	ERJ6GMYJ331	M. RESISTOR CH 1/10W 330	1	
R4011	ERJ6GMYK225	M. RESISTOR CH 1/10W 2.2M	1	
R4012	ERJ6GMYJ683	M. RESISTOR CH 1/10W 68K	1	
R4013	ERJ6GMYJ393	M. RESISTOR CH 1/10W 39K	1	
R4014	ERJ6GMYJ472	M. RESISTOR CH 1/10W 4.7K	1	
R4015	ERJ6GMYJ222	M. RESISTOR CH 1/10W 2.2K	1	
R4016	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	1	
R4017, 18	ERJ6GMYJ471	M. RESISTOR CH 1/10W 470	2	
R4020, 21	ERJ6GMYJ471	M. RESISTOR CH 1/10W 470	2	
R4022	ERJ6GMYJ331	M. RESISTOR CH 1/10W 330	1	
R4023	ERJ6GMYJ332	M. RESISTOR CH 1/10W 3.3K	1	
R4024	ERJ6GMYJ472	M. RESISTOR CH 1/10W 4.7K	1	
R4025	ERJ6GMYJ222	M. RESISTOR CH 1/10W 2.2K	1	
R4027, 28	ERJ6GMYJ472	M. RESISTOR CH 1/10W 4.7K	2	
R4029	ERJ6GMYJ682	M. RESISTOR CH 1/10W 6.8K	1	
R4030	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	1	
R4031	ERJ6GMYJ223	M. RESISTOR CH 1/10W 22K	1	
R4032, 33	ERJ6GMYJ822	M. RESISTOR CH 1/10W 8.2K	2	
R4035	ERJ6GMYJ183	M. RESISTOR CH 1/10W 18K	1	
R4036	ERJ6GMYJ331	M. RESISTOR CH 1/10W 330	1	
R4037	ERJ6GMYJ471	M. RESISTOR CH 1/10W 470	1	
R4058	ERJ6GMYJ682	M. RESISTOR CH 1/10W 6.8K	1	
R4063	ERJ6GMYJ223	M. RESISTOR CH 1/10W 22K	1	
R4503, 04	ERJ6GMYJ101	M. RESISTOR CH 1/10W 100	2	
R4505	ERJ6GMYJ332	M. RESISTOR CH 1/10W 3.3K	1	
R4506, 07	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	2	
R4508	ERDS2TJ471	C. RESISTOR 1/4W 470	1	
R4510	ERDS2TJ471	C. RESISTOR 1/4W 470	1	
R4513, 14	ERJ6GMZ0R00	M. RESISTOR CH 1/10W 0	2	
R4515, 16	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	2	
R4517	ERJ6GMYJ393	M. RESISTOR CH 1/10W 39K	1	
R4518	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	1	
R4519	ERJ6GMYJ393	M. RESISTOR CH 1/10W 39K	1	
R4520	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	1	
R4521	ERJ6GMYJ222	M. RESISTOR CH 1/10W 2.2K	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R4522	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	1	
R4523	ERJ6GMYJ393	M. RESISTOR CH 1/10W 39K	1	
R4524	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	1	
R4527, 28	ERJ6RBD273	M. RESISTOR CH 1/10W 27K	2	
R4529	ERJ6GMYJ393	M. RESISTOR CH 1/10W 39K	1	
R4530	ERJ6GMYK225	M. RESISTOR CH 1/10W 2. 2M	1	
R4537	ERJ6GMYJ223	M. RESISTOR CH 1/10W 22K	1	
R6001	ERJ6GMZ0R00	M. RESISTOR CH 1/10W 0	1	
R6002	ERJ6GMYJ393	M. RESISTOR CH 1/10W 39K	1	
R6003	ERJ6GMYJ273	M. RESISTOR CH 1/10W 27K	1	
R6004	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	1	
R6005	ERJ6GMYJ221	M. RESISTOR CH 1/10W 220	1	
R6006, 07	ERJ6GMYJ273	M. RESISTOR CH 1/10W 27K	2	
R6008	ERDS2TJ181	C. RESISTOR 1/4W 180	1	
R6009	ERJ6GMYJ332	M. RESISTOR CH 1/10W 3. 3K	1	
R6010	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	1	
R6011	ERJ6GMYJ183	M. RESISTOR CH 1/10W 18K	1	
R6012	ERJ6GMYJ223	M. RESISTOR CH 1/10W 22K	1	
R6014	ERJ6GMYJ332	M. RESISTOR CH 1/10W 3. 3K	1	
R6015	ERJ6GMYJ472	M. RESISTOR CH 1/10W 4. 7K	1	
R6017, 18	ERJ6GMYJ332	M. RESISTOR CH 1/10W 3. 3K	2	
R6020	ERJ6GMZ0R00	M. RESISTOR CH 1/10W 0	1	
R6021	ERJ6GMYJ102	M. RESISTOR CH 1/10W 1K	1	
R6023, 24	ERJ6GMYJ221	M. RESISTOR CH 1/10W 220	2	
R6027	ERJ6GMYJ221	M. RESISTOR CH 1/10W 220	1	
R6028	ERJ6GMYJ222	M. RESISTOR CH 1/10W 2. 2K	1	
R6029	ERJ6GMYJ332	M. RESISTOR CH 1/10W 3. 3K	1	
R6030	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	1	
R6031	ERJ6GMYJ105	M. RESISTOR CH 1/10W 1M	1	
R6033	ERJ6GMYJ101	M. RESISTOR CH 1/10W 100	1	
R6035	ERJ6GMYJ221	M. RESISTOR CH 1/10W 220	1	
R6039	ERJ6GMZ0R00	M. RESISTOR CH 1/10W 0	1	
R6041	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	1	
R6044	ERDS2TJ121	C. RESISTOR 1/4W 120	1	
R6045	ERJ6GMYJ223	M. RESISTOR CH 1/10W 22K	1	
R6052, 53	ERJ6GMZ0R00	M. RESISTOR CH 1/10W 0	2	
R6055	ERJ6GMYJ334	M. RESISTOR CH 1/10W 330K	1	
R7501	ERJ6GMYG114	M. RESISTOR CH 1/10W 110K	1	
R7502	ERJ6GMYG202	M. RESISTOR CH 1/10W 2K	1	
R7504	ERJ6GMYJ221	M. RESISTOR CH 1/10W 220	1	
R7505	ERJ6GMYG363	M. RESISTOR CH 1/10W 36K	1	
R7507, 08	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	2	
R7509	ERJ6GMYG182	M. RESISTOR CH 1/10W 1. 8K	1	
R7510	ERDS2TJ180	C. RESISTOR 1/4W 18	1	
R7512, 13	ERJ6GMYG123	M. RESISTOR CH 1/10W 12K	2	
R7514	ERJ6GMYJ101	M. RESISTOR CH 1/10W 100	1	
R7516	ERDS2TJ102	C. RESISTOR 1/4W 1K	1	
R7518	ERDS2TJ150	C. RESISTOR 1/4W 15	1	
R7519	ERJ6GMYG512	M. RESISTOR CH 1/10W 5. 1K	1	
R7520	ERJ6GMYG392	M. RESISTOR CH 1/10W 3. 9K	1	
R7521	ERJ6GMYG242	M. RESISTOR CH 1/10W 2. 4K	1	
R7522	ERJ6GMYG332	M. RESISTOR CH 1/10W 3. 3K	1	
R7523	ERJ6GMYG362	M. RESISTOR CH 1/10W 3. 6K	1	
R7524	ERJ6GMYG472	M. RESISTOR CH 1/10W 4. 7K	1	
R7526	ERJ6GMYG912	M. RESISTOR CH 1/10W 9. 1K	1	
R7529	ERJ6GMYJ221	M. RESISTOR CH 1/10W 220	1	
R7604	ERJ6GMYJ102	M. RESISTOR CH 1/10W 1K	1	
R7605, 06	ERG2SJ331	M. RESISTOR 2W 330	2	
R7608	ERJ6GMYJ102	M. RESISTOR CH 1/10W 1K	1	
R7611-14	ERJ6GMYJ101	M. RESISTOR CH 1/10W 100	4	
R7701	ERJ6GMYJ272	M. RESISTOR CH 1/10W 2. 7K	1	
R7702, 03	ERJ6GMYJ152	M. RESISTOR CH 1/10W 1. 5K	2	
R7704	ERJ6GMYJ102	M. RESISTOR CH 1/10W 1K	1	
R7705, 06	ERJ6GMYJ101	M. RESISTOR CH 1/10W 100	2	
R7707	ERJ6GMYJ224	M. RESISTOR CH 1/10W 220K	1	
R7708	ERJ6GMYJ222	M. RESISTOR CH 1/10W 2. 2K	1	
R7709	ERJ6GMYJ224	M. RESISTOR CH 1/10W 220K	1	
S6001	VES0834	S-TAB SWITCH	1	
S6002	VSS0520	MODE SELECT SWITCH	1	
S7501-08	EVQ11L07B	SWITCH	8	
T4001	EQQ7QF025Q	TRANSFORMER	1	
T4002	EQQ7QF026Q	TRANSFORMER	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
⚠ TU7601	ENG57808G1	TUNER	1	
X3001	VSX0162	CRYSTAL OSCILLATOR	1	
X3002	VSX0160	CRYSTAL OSCILLATOR	1	
X6001	VSX0660	CRYSTAL OSCILLATOR	1	
X6002	VSX0365	CRYSTAL OSCILLATOR	1	
		MISCELLANEOUS		
	VXQ0648	FIP HOLDER	1	
■	VEP06C93H	MAIN C. B. A.		(RTL)
				NV-HD675A
B6001	CR2354-1GUF	LITHIUM BATTERY	1	
C1001	ECUM1H103ZFN	C. CAPACITOR CH 50V 0. 01U	1	
C1002	VCEA0JCB220	E. CAPACITOR 6. 3V 22U	1	
C1003	VCEA0JCB101	E. CAPACITOR 6. 3V 100U	1	
C1004	ECUM1H103ZFN	C. CAPACITOR CH 50V 0. 01U	1	
C1005	VCEA1CCB470	E. CAPACITOR 16V 47U	1	
C1007	ECUM1H103ZFN	C. CAPACITOR CH 50V 0. 01U	1	
C1008	VCEA0JBS470	E. CAPACITOR 6. 3V 47U	1	
C1009	VCEA0JBS101	E. CAPACITOR 6. 3V 100U	1	
C1011	VCEA1ECB470	E. CAPACITOR 25V 47U	1	
C1014	VCEA0JCB101	E. CAPACITOR 6. 3V 100U	1	
C1015	ECUM1H103ZFN	C. CAPACITOR CH 50V 0. 01U	1	
C2001	ECEA1CKN220	E. CAPACITOR 16V 22U	1	
C2006	ECUM1C474KBN	C. CAPACITOR CH 16V 0. 47U	1	
C2008	ECUM1H392KBN	C. CAPACITOR CH 50V 3900P	1	
C2009	ECUM1H104ZFN	C. CAPACITOR CH 50V 0. 1U	1	
C2010	VCEA1HCB4R7	E. CAPACITOR 50V 4. 7U	1	
C2011	ECUM1H222KBN	C. CAPACITOR CH 50V 2200P	1	
C2012	ECUM1H563KBN	C. CAPACITOR CH 50V 0. 056U	1	
C2013	VCEA1HCB3R3	E. CAPACITOR 50V 3. 3U	1	
C2501, 02	ECUM1H563KBN	C. CAPACITOR CH 50V 0. 056U	2	
C2503	ECEA1VKN4R7	E. CAPACITOR 35V 4. 7U	1	
C2504	VCEA1ECB470	E. CAPACITOR 25V 47U	1	
C2505	ECEA1VKN4R7	E. CAPACITOR 35V 4. 7U	1	
C2506	VCEA0JCB221	E. CAPACITOR 6. 3V 220U	1	
C2507	ECUM1H473ZFN	C. CAPACITOR CH 50V 0. 047U	1	
C2508	ECUM1C683KBN	C. CAPACITOR CH 16V 0. 068U	1	
C2509-11	ECUM1C154KBN	C. CAPACITOR CH 16V 0. 15U	3	
C2512	ECEA1VKN4R7	E. CAPACITOR 35V 4. 7U	1	
C3001	VCEA1CCB470	E. CAPACITOR 16V 47U	1	
C3003	VCEA0JEC471	E. CAPACITOR 6. 3V 470U	1	
C3004	ECUM1H560JCN	C. CAPACITOR CH 50V 56P	1	
C3005	ECUM1E104KBN	C. CAPACITOR CH 25V 0. 1U	1	
C3006	ECUM1H220JCN	C. CAPACITOR CH 50V 22P	1	
C3007	ECUM1H821JCN	C. CAPACITOR CH 50V 820P	1	
C3008	VCEA1HCB010	E. CAPACITOR 50V 1U	1	
C3009	ECUM1H104ZFN	C. CAPACITOR CH 50V 0. 1U	1	
C3010	ECUM1H680JCN	C. CAPACITOR CH 50V 68P	1	
C3011	ECUM1H120JCN	C. CAPACITOR CH 50V 12P	1	
C3012	ECUM1E104KBN	C. CAPACITOR CH 25V 0. 1U	1	
C3013	ECUM1H103ZFN	C. CAPACITOR CH 50V 0. 01U	1	
C3014	ECUM1E104KBN	C. CAPACITOR CH 25V 0. 1U	1	
C3015	VCEA0JCB221	E. CAPACITOR 6. 3V 220U	1	
C3016	ECUM1H104ZFN	C. CAPACITOR CH 50V 0. 1U	1	
C3017	VCEA1HCB010	E. CAPACITOR 50V 1U	1	
C3018	ECUM1H103KBN	C. CAPACITOR CH 50V 0. 01U	1	
C3019	ECUM1H104ZFN	C. CAPACITOR CH 50V 0. 1U	1	
C3020	VCEA0JCB101	E. CAPACITOR 6. 3V 100U	1	
C3021	ECUM1E104KBN	C. CAPACITOR CH 25V 0. 1U	1	
C3022	ECUM1H222KBN	C. CAPACITOR CH 50V 2200P	1	
C3024	ECUM1H221JCN	C. CAPACITOR CH 50V 220P	1	
C3026	VCEA1HCB3R3	E. CAPACITOR 50V 3. 3U	1	
C3028	VCEA0JCB470	E. CAPACITOR 6. 3V 47U	1	
C3029	ECUM1H104ZFN	C. CAPACITOR CH 50V 0. 1U	1	
C3030	VCEA0JCB101	E. CAPACITOR 6. 3V 100U	1	
C3031	VCEA0JCB220	E. CAPACITOR 6. 3V 22U	1	
C3032	ECUM1H103ZFN	C. CAPACITOR CH 50V 0. 01U	1	
C3033	VCEA1HCBR47	E. CAPACITOR 50V 0. 47U	1	
C3034	ECUM1H222KBN	C. CAPACITOR CH 50V 2200P	1	
C3035	VCEA1ECB4R7	E. CAPACITOR 25V 4. 7U	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C3036	ECUM1H560JCN	C. CAPACITOR CH 50V 56P	1	
C3037	VCEA1ECB4R7	E. CAPACITOR 25V 4.7U	1	
C3038	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	
C3039	VCEA0JCB221	E. CAPACITOR 6.3V 220U	1	
C3040	VCEA1ECB4R7	E. CAPACITOR 25V 4.7U	1	
C3041	VCEA0JCB221	E. CAPACITOR 6.3V 220U	1	
C3042	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	
C3043	VCEA0JCB220	E. CAPACITOR 6.3V 22U	1	
C3044	ECUM1E563KBN	C. CAPACITOR CH 25V 0.056U	1	
C3045	VCEA1CCB100	E. CAPACITOR 16V 10U	1	
C3046	ECUM1H561JCN	C. CAPACITOR CH 50V 560P	1	
C3047	ECUM1H221JCN	C. CAPACITOR CH 50V 220P	1	
C3048, 49	ECUM1H102KBN	C. CAPACITOR CH 50V 1000P	2	
C3051, 52	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	2	
C3054	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
C3055	ECUM1H180JCN	C. CAPACITOR CH 50V 18P	1	
C3056	VCEA1HCB3R3	E. CAPACITOR 50V 3.3U	1	
C4001	ECUM1C105ZFN	C. CAPACITOR CH 16V 1U	1	
C4002	ECUM1H822KBN	C. CAPACITOR CH 50V 8200P	1	
C4003	VCEA0JCB220	E. CAPACITOR 6.3V 22U	1	
C4004	ECUM1H182JCN	C. CAPACITOR CH 50V 1800P	1	
C4005	ECUM1H272KBN	C. CAPACITOR CH 50V 2700P	1	
C4006	VCEA1HCB010	E. CAPACITOR 50V 1U	1	
C4007	VCEA1ECB4R7	E. CAPACITOR 25V 4.7U	1	
C4008	ECUM1H822KBN	C. CAPACITOR CH 50V 8200P	1	
C4009	ECUM1E273KBN	C. CAPACITOR CH 25V 0.027U	1	
C4010	ECUM1H822KBN	C. CAPACITOR CH 50V 8200P	1	
C4011	VCEA1CCB100	E. CAPACITOR 16V 10U	1	
C4012	VCEA0JCB470	E. CAPACITOR 6.3V 47U	1	
C4013	VCEA0JCB220	E. CAPACITOR 6.3V 22U	1	
C4014, 15	VCEA1HCBR33	E. CAPACITOR 50V 0.33U	2	
C4016	ECKF1H102KB	C. CAPACITOR 50V 1000P	1	
C4018	ECUM1H223KBN	C. CAPACITOR CH 50V 0.022U	1	
C4020	VCEA0JCB221	E. CAPACITOR 6.3V 220U	1	
C4021	ECQV1H154JM	P. CAPACITOR 50V 0.15U	1	
C4023	ECUM1H472KBN	C. CAPACITOR CH 50V 4700P	1	
C4024	ECQB1H333JF	P. CAPACITOR 50V 0.033U	1	
C4025	ECUM1H222KBN	C. CAPACITOR CH 50V 2200P	1	
C4026	ECUM1H223KBN	C. CAPACITOR CH 50V 0.022U	1	
C4027, 28	VCEA0JCB470	E. CAPACITOR 6.3V 47U	2	
C4037	VCEA1HCBR33	E. CAPACITOR 50V 0.33U	1	
C4042	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
C4078	VCEA0JCB470	E. CAPACITOR 6.3V 47U	1	
C4501	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
C4502	ECA1CAK100X	E. CAPACITOR 16V 10U	1	
C4503	ECQB1H223JF	P. CAPACITOR 50V 0.022U	1	
C4504	ECQB1H472JF	P. CAPACITOR 50V 4700P	1	
C4506	VCEA1HCB4R7	E. CAPACITOR 50V 4.7U	1	
C4509, 10	ECA0JAK101X	E. CAPACITOR 6.3V 100U	2	
C4511	ECA1HAK4R7	E. CAPACITOR 50V 4.7U	1	
C4512	VCEA0JAW330	E. CAPACITOR 6.3V 33U	1	
C4513	ECA0JAK101X	E. CAPACITOR 6.3V 100U	1	
C4514	ECUM1H223KBN	C. CAPACITOR CH 50V 0.022U	1	
C4515	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
C4516	VCEA0JAW330	E. CAPACITOR 6.3V 33U	1	
C4517	ECA1CAK100X	E. CAPACITOR 16V 10U	1	
C4518	ECQB1H223JF	P. CAPACITOR 50V 0.022U	1	
C4519	ECQB1H472JF	P. CAPACITOR 50V 4700P	1	
C4520	VCEA0JCB470	E. CAPACITOR 6.3V 47U	1	
C4521, 22	ECUM1H152KBN	C. CAPACITOR CH 50V 1500P	2	
C6002	ECUM1H221JCN	C. CAPACITOR CH 50V 220P	1	
C6003	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	
C6006, 07	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	2	
C6009	ECUM1H221JCN	C. CAPACITOR CH 50V 220P	1	
C6012, 13	ECUM1H101JCN	C. CAPACITOR CH 50V 100P	2	
C6015	ECUM1H150JCN	C. CAPACITOR CH 50V 15P	1	
C6016	ECUM1H180JCN	C. CAPACITOR CH 50V 18P	1	
C6017	ECUM1H100DCN	C. CAPACITOR CH 50V 10P	1	
C6018	ECUM1H180JCN	C. CAPACITOR CH 50V 18P	1	
C6019, 20	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	2	
C6021	VCEA0JCB101	E. CAPACITOR 6.3V 100U	1	
C6023	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	
C6024	VCEA0JEC471	E. CAPACITOR 6.3V 470U	1	
C6031	ECUM1H330JCN	C. CAPACITOR CH 50V 33P	1	
C6033	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C7302	ECEA1HKN2R2	E. CAPACITOR 50V 2.2U	1	
C7304	ECEA1HKN2R2	E. CAPACITOR 50V 2.2U	1	
C7308	ECUM1H181JCN	C. CAPACITOR CH 50V 180P	1	
C7309	ECUM1H152KBN	C. CAPACITOR CH 50V 1500P	1	
C7310	ECEA1CKA100	E. CAPACITOR 16V 10U	1	
C7311	ECEA1CKA101	E. CAPACITOR 16V 100U	1	
C7312	ECQB1H103JF	P. CAPACITOR 50V 0.01U	1	
C7313	ECQV1H104JM	P. CAPACITOR 50V 0.1U	1	
C7314, 15	ECQB1H103JF	P. CAPACITOR 50V 0.01U	2	
C7320, 21	ECEA1CKA100	E. CAPACITOR 16V 10U	2	
C7323-25	ECUM1H153KBM	C. CAPACITOR CH 50V 0.015U	3	
C7326	ECEA1CKN100	E. CAPACITOR 16V 10U	1	
C7328	ECEA1CKA470	E. CAPACITOR 16V 47U	1	
C7333	ECUX1H103ZFV	C. CAPACITOR CH 50V 0.01U	1	
C7337	ECUX1H103ZFV	C. CAPACITOR CH 50V 0.01U	1	
C7349	ECUX1H103ZFV	C. CAPACITOR CH 50V 0.01U	1	
C7353	ECEA1HKA2R2	E. CAPACITOR 50V 2.2U	1	
C7355, 56	ECEA1HKA2R2	E. CAPACITOR 50V 2.2U	2	
C7357	ECEA1CKA470	E. CAPACITOR 16V 47U	1	
C7358	ECUX1H103ZFV	C. CAPACITOR CH 50V 0.01U	1	
C7359	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
C7501	VCEA1HCB100	E. CAPACITOR 50V 10U	1	
C7502	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	
C7503	VCEA0JCB101	E. CAPACITOR 6.3V 100U	1	
C7505	ECUM1H120JCN	C. CAPACITOR CH 50V 12P	1	
C7603	ECUM1C224ZFN	C. CAPACITOR CH 16V 0.22U	1	
C7606	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
C7608	VCEA1HCB100	E. CAPACITOR 50V 10U	1	
C7609	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	
C7611	VCEA0JCB101	E. CAPACITOR 6.3V 100U	1	
C7612	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
C7613	VCEA0JCB101	E. CAPACITOR 6.3V 100U	1	
C7704	VCEA0JCB101	E. CAPACITOR 6.3V 100U	1	
C7705	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	
C7706	ECUM1H102KBN	C. CAPACITOR CH 50V 1000P	1	
C7707	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
C7708	ECUM1H222KBN	C. CAPACITOR CH 50V 2200P	1	
C7709	ECUM1C105ZFN	C. CAPACITOR CH 16V 1U	1	
D1001	MA4051N-M	DIODE	1	
D1002	1SS254	DIODE	1	
D1003	MA4120N-M	DIODE	1	
D1004	1SS254	DIODE	1	
D1005	MA4051N-M	DIODE	1	
D1006	1SS254	DIODE	1	
D2501	MA723VT	DIODE	1	
D2502	1SS254	DIODE	1	
D4001	1SS254	DIODE	1	
D4501-03	1SS254	DIODE	3	
D6001-03	RB441P	DIODE	3	
D6004, 05	1SS254	DIODE	2	
D6006	SIR505S	DIODE	1	
D6007-10	1SS254	DIODE	4	
D7501	MA4180N	DIODE	1	
D7505	1SS254	DIODE	1	
D7601	MA4300N-M	DIODE	1	
DP7501	VSL0505	DISPLAY TUBE	1	
IC1001	PQ20VB2E	IC	1	
IC2501	AN3811NK	IC	1	
IC3001	TDA9735HV2	IC	1	
IC4501	BH7803K	IC	1	
IC6001	PNA4611M02VT	IR RECEIVER UNIT	1	
IC6002	PST993D	IC	1	
IC6004, 05	RPI354N	IC	2	
IC6007	MN101D02GMA	IC	1	
IC7301	TDA9840T	IC	1	
IC7302	TDA9821	IC	1	
IC7501	M35502AFP	IC	1	
⚠ IP1001, 02	UNH000300A	IC PROTECTOR	2	
⚠ IP1003	VSF0015A025	IC PROTECTOR	1	
⚠ IP1004	UNH000300A	IC PROTECTOR	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
JK3001	VJJ0559	RCA PIN JACK (6-PIN)	1	
K1002	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
K2001	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
K4002, 03	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	2	
L3002	VLQ0599J390	COIL 39UH	1	
L3003	VLQ0599J121	COIL 120UH	1	
L3004	VLQ0599J220	COIL 22UH	1	
L3005	VLQ0599J151	COIL 150UH	1	
L3006-11	VLQ0599J680	COIL 68UH	6	
L3012	VLQ0599J270	COIL 27UH	1	
L4001	VLQEL07F153J	COIL 15MH	1	
L4003	VLQ0599J121	COIL 120UH	1	
L4026	VLQ0599J121	COIL 120UH	1	
L7604, 05	VLQ0599J330	COIL 33UH	2	
L7701	VLQ0599J680	COIL 68UH	1	
LB4001	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
LB4004	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
LB6002	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
P1001	VJS3917A016W	CONNECTOR (FEMALE) 16P	1	
P2001	VJP3835A012	CONNECTOR (MALE) 12P	1	
P2501	VJS3537A009G	CONNECTOR (FEMALE) 9P	1	
P3001	VJS3537A016G	CONNECTOR (FEMALE) 16P	1	
P3002	VJS3478A005T	CONNECTOR (FEMALE) 5P	1	
P4001	VJS3537A006G	CONNECTOR (FEMALE) 6P	1	
P4002	VJS3837A002	CONNECTOR (FEMALE) 2P	1	
P6002	VJS3837A002	CONNECTOR (FEMALE) 2P	1	
P6003	VJS3905	DEW SENSOR CONNECTOR	1	
P7501	VJP3630A010G	CONNECTOR (MALE) 10P	1	
PK7301	VJR0777B007W	CONNECTOR (MALE) 7P	1	
PK7302	VJR0777B006W	CONNECTOR (MALE) 6P	1	
Q1001	2SC3940A	TRANSISTOR	1	
Q1002, 03	2SD1996	TRANSISTOR	2	
Q1005	2SD1996	TRANSISTOR	1	
Q1009	2SD602A	TRANSISTOR	1	
Q3002	2SB709A	TRANSISTOR	1	
Q3005	MSB709-R	TRANSISTOR-RESISTOR	1	
Q3006	MSD601-R	TRANSISTOR-RESISTOR	1	
Q3007	2SA1022	TRANSISTOR	1	
Q3008	XN1501	TWIN TRANSISTOR	1	
Q3009	MSB709-R	TRANSISTOR-RESISTOR	1	
Q4002	MSD602-R	TRANSISTOR	1	
Q4003	2SB1321	TRANSISTOR	1	
Q4004	MSD602-R	TRANSISTOR	1	
Q4005	2SD1149	TRANSISTOR	1	
Q4006	2SD601A	TRANSISTOR	1	
Q4009	MSB710-R	TRANSISTOR	1	
Q4501	MSD601-R	TRANSISTOR-RESISTOR	1	
Q4502	2SA1515	TRANSISTOR	1	
Q4503	MSD1328-R	TRANSISTOR	1	
Q6001	PNB2301MBV	TRANSISTOR	1	
Q6002	PNB2301MAV	TRANSISTOR	1	
Q7301	MSD601-S	TRANSISTOR	1	
Q7701	2SB709A	TRANSISTOR	1	
QR1011	MUN2112	TRANSISTOR-RESISTOR	1	
QR3003, 04	MUN2213	TRANSISTOR-RESISTOR	2	
QR4004	MUN2111	TRANSISTOR-RESISTOR	1	
QR4501	MUN2212	TRANSISTOR-RESISTOR	1	
QR6001	MUN2211	TRANSISTOR-RESISTOR	1	
R1001	ERDS2TJ561	C.RESISTOR 1/4W 560	1	
R1002	ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R1004	ERJ6GMYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R1010	ERJ6GMYG683	M.RESISTOR CH 1/10W 68K	1	
R1011	ERJ6GMYG752	M.RESISTOR CH 1/10W 7.5K	1	
R1012	ERJ6GMYG433	M.RESISTOR CH 1/10W 43K	1	
R1013, 14	ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	2	
R1018, 19	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	2	
R1022	ERDS2TJ561	C.RESISTOR 1/4W 560	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R2001	ERJ6GMYJ392	M.RESISTOR CH 1/10W 3.9K	1	
R2002	ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R2003	ERJ6GMYJ273	M.RESISTOR CH 1/10W 27K	1	
R2004	ERJ6GMYG393	M.RESISTOR CH 1/10W 39K	1	
R2501	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R2502, 03	ERDS2TJ330	C.RESISTOR 1/4W 33	2	
R2504	ERDS2TJ1R2	C.RESISTOR 1/4W 1.2	1	
R2505	ERDS2TJ331	C.RESISTOR 1/4W 330	1	
R2506	ERDS2TJ1R5	C.RESISTOR 1/4W 1.5	1	
R2507	ERDS2TJ330	C.RESISTOR 1/4W 33	1	
R3001	ERDS2TJ471	C.RESISTOR 1/4W 470	1	
R3003	ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R3004	ERJ6GMYJ471	M.RESISTOR CH 1/10W 470	1	
R3005	ERJ6GMYJ331	M.RESISTOR CH 1/10W 330	1	
R3007	ERJ6GMYJ750	M.RESISTOR CH 1/10W 75	1	
R3008	ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R3009	ERJ6GMYJ750	M.RESISTOR CH 1/10W 75	1	
R3011	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R3012	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R3013	ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R3017	ERJ6GMYJ333	M.RESISTOR CH 1/10W 33K	1	
R3018	ERJ6GMYG301	M.RESISTOR CH 1/10W 300	1	
R3019	ERJ6GMYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R3020	ERJ6GMYJ393	M.RESISTOR CH 1/10W 39K	1	
R3021	ERJ6GMYJ183	M.RESISTOR CH 1/10W 18K	1	
R3022	ERJ6GMYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R3023	ERJ6GMYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R3024	ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R3025	ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R3026	ERJ6GMYJ684	M.RESISTOR CH 1/10W 680K	1	
R3027	ERJ6GMYJ224	M.RESISTOR CH 1/10W 220K	1	
R3028	ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R3029	ERJ6GMYJ331	M.RESISTOR CH 1/10W 330	1	
R3030, 31	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	2	
R3032	ERJ6GMYJ271	M.RESISTOR CH 1/10W 270	1	
R3033, 34	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	2	
R3035	ERJ6GMYJ271	M.RESISTOR CH 1/10W 270	1	
R3037	ERJ6GMYJ822	M.RESISTOR CH 1/10W 8.2K	1	
R3039	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R3040	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R3043	ERJ6GMYJ821	M.RESISTOR CH 1/10W 820	1	
R3046	ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R3047	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R3048	ERJ6GMYJ271	M.RESISTOR CH 1/10W 270	1	
R3049	ERJ6GMYJ124	M.RESISTOR CH 1/10W 120K	1	
R3050	ERJ6GMYJ563	M.RESISTOR CH 1/10W 56K	1	
R3051	ERJ6GMYG123	M.RESISTOR CH 1/10W 12K	1	
R3052	ERJ6GMYG223	M.RESISTOR CH 1/10W 22K	1	
R3053	ERJ6GMYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R3054	ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R3055	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R4001	ERJ6GMYJ334	M.RESISTOR CH 1/10W 330K	1	
R4002	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R4003	ERJ6GMYJ241	M.RESISTOR CH 1/10W 240	1	
R4004	ERJ6GMYJ273	M.RESISTOR CH 1/10W 27K	1	
R4005	ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R4006	ERJ6GMYJ163	M.RESISTOR CH 1/10W 16K	1	
R4007	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R4008	ERJ6GMYJ391	M.RESISTOR CH 1/10W 390	1	
R4009	ERJ6GMYJ331	M.RESISTOR CH 1/10W 330	1	
R4010	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R4011	ERJ6GMYK225	M.RESISTOR CH 1/10W 2.2M	1	
R4012	ERJ6GMYJ393	M.RESISTOR CH 1/10W 39K	1	
R4013	ERJ6GMYJ183	M.RESISTOR CH 1/10W 18K	1	
R4014	ERJ6GMYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R4015	ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R4016	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R4017	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R4019, 20	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	2	
R4023	ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R4024	ERJ6GMYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R4025	ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R4027, 28	ERJ6GMYJ472	M.RESISTOR CH 1/10W 4.7K	2	
R4029	ERJ6GMYJ682	M.RESISTOR CH 1/10W 6.8K	1	
R4030	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R4031	ERJ6GMYJ223	M. RESISTOR CH 1/10W 22K	1	
R4032, 33	ERJ6GMYJ822	M. RESISTOR CH 1/10W 8. 2K	2	
R4035	ERJ6GMYJ183	M. RESISTOR CH 1/10W 18K	1	
R4037	ERJ6GMYJ471	M. RESISTOR CH 1/10W 470	1	
R4058	ERJ6GMYJ682	M. RESISTOR CH 1/10W 6. 8K	1	
R4063	ERJ6GMYJ223	M. RESISTOR CH 1/10W 22K	1	
R4501, 02	ERJ6GMYJ513	M. RESISTOR CH 1/10W 51K	2	
R4503, 04	ERJ6GMYJ101	M. RESISTOR CH 1/10W 100	2	
R4505	ERJ6GMYJ332	M. RESISTOR CH 1/10W 3. 3K	1	
R4506, 07	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	2	
R4508	ERDS2TJ471	C. RESISTOR 1/4W 470	1	
R4510	ERDS2TJ471	C. RESISTOR 1/4W 470	1	
R4513-16	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	4	
R4517	ERJ6GMYJ393	M. RESISTOR CH 1/10W 39K	1	
R4518	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	1	
R4519	ERJ6GMYJ393	M. RESISTOR CH 1/10W 39K	1	
R4520	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	1	
R4521	ERJ6GMYJ222	M. RESISTOR CH 1/10W 2. 2K	1	
R4522	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	1	
R4523	ERJ6GMYJ393	M. RESISTOR CH 1/10W 39K	1	
R4524	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	1	
R4527, 28	ERJ6RBD273	M. RESISTOR CH 1/10W 27K	2	
R4529	ERJ6GMYJ393	M. RESISTOR CH 1/10W 39K	1	
R4530	ERJ6GMYK225	M. RESISTOR CH 1/10W 2. 2M	1	
R6001	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	1	
R6002	ERJ6GMYJ393	M. RESISTOR CH 1/10W 39K	1	
R6003	ERJ6GMYJ273	M. RESISTOR CH 1/10W 27K	1	
R6004	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	1	
R6005	ERJ6GMYJ221	M. RESISTOR CH 1/10W 220	1	
R6006, 07	ERJ6GMYJ273	M. RESISTOR CH 1/10W 27K	2	
R6008	ERDS2TJ181	C. RESISTOR 1/4W 180	1	
R6009	ERJ6GMYJ332	M. RESISTOR CH 1/10W 3. 3K	1	
R6010	ERJ6GMYJ223	M. RESISTOR CH 1/10W 22K	1	
R6011	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	1	
R6013	ERJ6GMYJ473	M. RESISTOR CH 1/10W 47K	1	
R6014	ERJ6GMYJ332	M. RESISTOR CH 1/10W 3. 3K	1	
R6015	ERJ6GMYJ472	M. RESISTOR CH 1/10W 4. 7K	1	
R6017, 18	ERJ6GMYJ332	M. RESISTOR CH 1/10W 3. 3K	2	
R6020	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	1	
R6021	ERJ6GMYJ102	M. RESISTOR CH 1/10W 1K	1	
R6023, 24	ERJ6GMYJ221	M. RESISTOR CH 1/10W 220	2	
R6027	ERJ6GMYJ221	M. RESISTOR CH 1/10W 220	1	
R6028	ERJ6GMYJ222	M. RESISTOR CH 1/10W 2. 2K	1	
R6029	ERJ6GMYJ332	M. RESISTOR CH 1/10W 3. 3K	1	
R6030	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	1	
R6031	ERJ6GMYJ105	M. RESISTOR CH 1/10W 1M	1	
R6033	ERJ6GMYJ101	M. RESISTOR CH 1/10W 100	1	
R6035	ERJ6GMYJ221	M. RESISTOR CH 1/10W 220	1	
R6036, 37	ERJ6GMYJ223	M. RESISTOR CH 1/10W 22K	2	
R6041	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	1	
R6043	ERJ6GMYJ244	M. RESISTOR CH 1/10W 240K	1	
R6044	ERDS2TJ121	C. RESISTOR 1/4W 120	1	
R6045	ERJ6GMYJ223	M. RESISTOR CH 1/10W 22K	1	
R6052, 53	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	2	
R6055	ERJ6GMYJ334	M. RESISTOR CH 1/10W 330K	1	
R7302	ERJ3GEYG113	M. RESISTOR CH 1/16W 11K	1	
R7303	ERJ3GEYG182	M. RESISTOR CH 1/16W 1. 8K	1	
R7304	ERJ6GEYG512	M. RESISTOR CH 1/10W 5. 1K	1	
R7305	ERJ3GEYG821	M. RESISTOR CH 1/16W 820	1	
R7307	ERJ3GEYG821	M. RESISTOR CH 1/16W 820	1	
R7311	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R7313	ERJ3GEYJ273	M. RESISTOR CH 1/16W 27K	1	
R7323	ERJ3GEYG562	M. RESISTOR CH 1/16W 5. 6K	1	
R7324, 25	ERJ3GEYG471	M. RESISTOR CH 1/16W 470	2	
R7326	ERJ3GEYG113	M. RESISTOR CH 1/16W 11K	1	
R7327	ERJ6GEYJ103	M. RESISTOR CH 1/10W 10K	1	
R7329	ERJ3GEYG822	M. RESISTOR CH 1/16W 8. 2K	1	
R7330	ERJ3GEYOR00	M. RESISTOR CH 1/16W 0	1	
R7331	ERJ3GEYG752	M. RESISTOR CH 1/16W 7. 5K	1	
R7337, 38	ERJ3GEYJ471	M. RESISTOR CH 1/16W 470	2	
R7345	ERJ3GEYG182	M. RESISTOR CH 1/16W 1. 8K	1	
R7353, 54	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	2	
R7364	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1	
R7365	ERJ3GEYJ223	M. RESISTOR CH 1/16W 22K	1	
R7367	ERJ3GEYJ182	M. RESISTOR CH 1/16W 1. 8K	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R7368	ERJ3GEYJ272	M. RESISTOR CH 1/16W 2. 7K	1	
R7369	ERJ6GEYOR00	M. RESISTOR CH 1/10W 0	1	
R7370, 71	ERJ6GEYJ101	M. RESISTOR CH 1/10W 100	2	
R7501, 02	ERJ6GMYG114	M. RESISTOR CH 1/10W 110K	2	
R7504	ERJ6GMYJ221	M. RESISTOR CH 1/10W 220	1	
R7505	ERJ6GMYG363	M. RESISTOR CH 1/10W 36K	1	
R7509	ERJ6GMYG182	M. RESISTOR CH 1/10W 1. 8K	1	
R7510	ERDS2TJ180	C. RESISTOR 1/4W 18	1	
R7512, 13	ERJ6GMYG123	M. RESISTOR CH 1/10W 12K	2	
R7514	ERJ6GMYJ101	M. RESISTOR CH 1/10W 100	1	
R7516	ERDS2TJ102	C. RESISTOR 1/4W 1K	1	
R7518	ERDS2TJ150	C. RESISTOR 1/4W 15	1	
R7529	ERJ6GMYJ221	M. RESISTOR CH 1/10W 220	1	
R7604	ERJ6GMYJ102	M. RESISTOR CH 1/10W 1K	1	
R7605, 06	ERG2SJ331	M. RESISTOR 2W 330	2	
R7608	ERJ6GMYJ102	M. RESISTOR CH 1/10W 1K	1	
R7611-14	ERJ6GMZOR00	M. RESISTOR CH 1/10W 0	4	
R7704	ERJ6GMYJ102	M. RESISTOR CH 1/10W 1K	1	
R7705, 06	ERJ6GMYJ101	M. RESISTOR CH 1/10W 100	2	
R7708	ERJ6GMYJ222	M. RESISTOR CH 1/10W 2. 2K	1	
S6001	VES0834	S-TAB SWITCH	1	
S6002	VSS0520	MODE SELECT SWITCH	1	
S7501-04	EVQ11L07B	SWITCH	4	
T4001	EQQ7QF025Q	TRANSFORMER	1	
T4002	EQQ7QF026Q	TRANSFORMER	1	
T7301	EQR7QG028P	TRANSFORMER	1	
⚠ TU7601	ENG57606G1	TUNER	1	
VR7303	EVNCBAA00B23	V. RESISTOR	1	
X3001	VSX0162	CRYSTAL OSCILLATOR	1	
X3002	VSX0160	CRYSTAL OSCILLATOR	1	
X6001	VSX0660	CRYSTAL OSCILLATOR	1	
X6002	VSX0365	CRYSTAL OSCILLATOR	1	
X7301	EFCS5R5MS5	FILTER	1	
X7302	EFCS5R74MS5B	CRYSTAL OSCILLATOR	1	
X7305	VSX0648	CRYSTAL OSCILLATOR	1	
		MISCELLANEOUS		
	VXQ0648	FIP HOLDER	1	
	VMP4894	SUPPORT ANGLE	1	FOR DECODER C. B. A.
■	VEP06C93J	MAIN C. B. A.		(RTL)
				NV-HD675EA
B6001	CR2354-1GUF	LITHIUM BATTERY	1	
C1001	ECUM1H103ZFN	C. CAPACITOR CH 50V 0. 01U	1	
C1002	VCEA0JCB220	E. CAPACITOR 6. 3V 22U	1	
C1003	VCEA0JCB101	E. CAPACITOR 6. 3V 100U	1	
C1004	ECUM1H103ZFN	C. CAPACITOR CH 50V 0. 01U	1	
C1005	VCEA1CCB470	E. CAPACITOR 16V 47U	1	
C1007	ECUM1H103ZFN	C. CAPACITOR CH 50V 0. 01U	1	
C1008	VCEA0JBS470	E. CAPACITOR 6. 3V 47U	1	
C1009	VCEA0JBS101	E. CAPACITOR 6. 3V 100U	1	
C1011	VCEA1ECB470	E. CAPACITOR 25V 47U	1	
C1014	VCEA0JCB101	E. CAPACITOR 6. 3V 100U	1	
C1015	ECUM1H103ZFN	C. CAPACITOR CH 50V 0. 01U	1	
C2001	ECEA1CKN220	E. CAPACITOR 16V 22U	1	
C2006	ECUM1C474KBN	C. CAPACITOR CH 16V 0. 47U	1	
C2008	ECUM1H392KBN	C. CAPACITOR CH 50V 3900P	1	
C2009	ECUM1H104ZFN	C. CAPACITOR CH 50V 0. 1U	1	
C2010	VCEA1HCB4R7	E. CAPACITOR 50V 4. 7U	1	
C2011	ECUM1H222KBN	C. CAPACITOR CH 50V 2200P	1	
C2012	ECUM1H563KBN	C. CAPACITOR CH 50V 0. 056U	1	
C2013	VCEA1HCB3R3	E. CAPACITOR 50V 3. 3U	1	
C2501, 02	ECUM1H563KBN	C. CAPACITOR CH 50V 0. 056U	2	
C2503	ECEA1VKN4R7	E. CAPACITOR 35V 4. 7U	1	
C2504	VCEA1ECB470	E. CAPACITOR 25V 47U	1	
C2505	ECEA1VKN4R7	E. CAPACITOR 35V 4. 7U	1	
C2506	VCEA0JCB221	E. CAPACITOR 6. 3V 220U	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C2507	ECUM1H473ZFN	C. CAPACITOR CH 50V 0.047U	1	
C2508	ECUM1C683KBN	C. CAPACITOR CH 16V 0.068U	1	
C2509-11	ECUM1C154KBN	C. CAPACITOR CH 16V 0.15U	3	
C2512	ECEA1VKN4R7	E. CAPACITOR 35V 4.7U	1	
C3001	VCEA1CCB470	E. CAPACITOR 16V 47U	1	
C3003	VCEA0JEC471	E. CAPACITOR 6.3V 470U	1	
C3004	ECUM1H560JCN	C. CAPACITOR CH 50V 56P	1	
C3005	ECUM1E104KBN	C. CAPACITOR CH 25V 0.1U	1	
C3006	ECUM1H220JCN	C. CAPACITOR CH 50V 22P	1	
C3007	ECUM1H821JCN	C. CAPACITOR CH 50V 820P	1	
C3008	VCEA1HCB010	E. CAPACITOR 50V 1U	1	
C3009	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	
C3010	ECUM1H680JCN	C. CAPACITOR CH 50V 68P	1	
C3011	ECUM1H120JCN	C. CAPACITOR CH 50V 12P	1	
C3012	ECUM1E104KBN	C. CAPACITOR CH 25V 0.1U	1	
C3013	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
C3014	ECUM1E104KBN	C. CAPACITOR CH 25V 0.1U	1	
C3015	VCEA0JCB221	E. CAPACITOR 6.3V 220U	1	
C3016	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	
C3017	VCEA1HCB010	E. CAPACITOR 50V 1U	1	
C3018	ECUM1H103KBN	C. CAPACITOR CH 50V 0.01U	1	
C3019	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	
C3020	VCEA0JCB101	E. CAPACITOR 6.3V 100U	1	
C3021	ECUM1E104KBN	C. CAPACITOR CH 25V 0.1U	1	
C3022	ECUM1H222KBN	C. CAPACITOR CH 50V 2200P	1	
C3024	ECUM1H221JCN	C. CAPACITOR CH 50V 220P	1	
C3026	VCEA1HCB3R3	E. CAPACITOR 50V 3.3U	1	
C3028	VCEA0JCB470	E. CAPACITOR 6.3V 47U	1	
C3029	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	
C3030	VCEA0JCB101	E. CAPACITOR 6.3V 100U	1	
C3031	VCEA0JCB220	E. CAPACITOR 6.3V 22U	1	
C3032	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
C3033	VCEA1HCBR47	E. CAPACITOR 50V 0.47U	1	
C3034	ECUM1H222KBN	C. CAPACITOR CH 50V 2200P	1	
C3035	VCEA1ECB4R7	E. CAPACITOR 25V 4.7U	1	
C3036	ECUM1H560JCN	C. CAPACITOR CH 50V 56P	1	
C3037	VCEA1ECB4R7	E. CAPACITOR 25V 4.7U	1	
C3038	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	
C3039	VCEA0JCB221	E. CAPACITOR 6.3V 220U	1	
C3040	VCEA1ECB4R7	E. CAPACITOR 25V 4.7U	1	
C3041	VCEA0JCB221	E. CAPACITOR 6.3V 220U	1	
C3042	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	
C3043	VCEA0JCB220	E. CAPACITOR 6.3V 22U	1	
C3044	ECUM1E563KBN	C. CAPACITOR CH 25V 0.056U	1	
C3045	VCEA1CCB100	E. CAPACITOR 16V 10U	1	
C3046	ECUM1H561JCN	C. CAPACITOR CH 50V 560P	1	
C3047	ECUM1H221JCN	C. CAPACITOR CH 50V 220P	1	
C3048, 49	ECUM1H102KBN	C. CAPACITOR CH 50V 1000P	2	
C3051, 52	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	2	
C3054	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
C3055	ECUM1H180JCN	C. CAPACITOR CH 50V 18P	1	
C3056	VCEA1HCB3R3	E. CAPACITOR 50V 3.3U	1	
C4001	ECUM1C105ZFN	C. CAPACITOR CH 16V 1U	1	
C4002	ECUM1H822KBN	C. CAPACITOR CH 50V 8200P	1	
C4003	VCEA0JCB220	E. CAPACITOR 6.3V 22U	1	
C4004	ECUM1H182JCN	C. CAPACITOR CH 50V 1800P	1	
C4005	ECUM1H272KBN	C. CAPACITOR CH 50V 2700P	1	
C4006	VCEA1HCB010	E. CAPACITOR 50V 1U	1	
C4007	VCEA1ECB4R7	E. CAPACITOR 25V 4.7U	1	
C4008	ECUM1H822KBN	C. CAPACITOR CH 50V 8200P	1	
C4009	ECUM1E273KBN	C. CAPACITOR CH 25V 0.027U	1	
C4010	ECUM1H822KBN	C. CAPACITOR CH 50V 8200P	1	
C4011	VCEA1CCB100	E. CAPACITOR 16V 10U	1	
C4012	VCEA0JCB470	E. CAPACITOR 6.3V 47U	1	
C4013	VCEA0JCB220	E. CAPACITOR 6.3V 22U	1	
C4014, 15	VCEA1HCBR33	E. CAPACITOR 50V 0.33U	2	
C4016	ECKF1H102KB	C. CAPACITOR 50V 1000P	1	
C4018	ECUM1H223KBN	C. CAPACITOR CH 50V 0.022U	1	
C4020	VCEA0JCB221	E. CAPACITOR 6.3V 220U	1	
C4021	ECQV1H154JM	P. CAPACITOR 50V 0.15U	1	
C4023	ECUM1H472KBN	C. CAPACITOR CH 50V 4700P	1	
C4024	ECQB1H333JF	P. CAPACITOR 50V 0.033U	1	
C4025	ECUM1H222KBN	C. CAPACITOR CH 50V 2200P	1	
C4026	ECUM1H223KBN	C. CAPACITOR CH 50V 0.022U	1	
C4027, 28	VCEA0JCB470	E. CAPACITOR 6.3V 47U	2	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C4037	VCEA1HCBR33	E. CAPACITOR 50V 0.33U	1	
C4042	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
C4078	VCEA0JCB470	E. CAPACITOR 6.3V 47U	1	
C4501	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
C4502	ECA1CAK100X	E. CAPACITOR 16V 10U	1	
C4503	ECQB1H223JF	P. CAPACITOR 50V 0.022U	1	
C4504	ECQB1H472JF	P. CAPACITOR 50V 4700P	1	
C4506	VCEA1HCB4R7	E. CAPACITOR 50V 4.7U	1	
C4509, 10	ECA0JAK101X	E. CAPACITOR 6.3V 100U	2	
C4511	ECA1HAK4R7	E. CAPACITOR 50V 4.7U	1	
C4512	VCEA0JAW330	E. CAPACITOR 6.3V 33U	1	
C4513	ECA0JAK101X	E. CAPACITOR 6.3V 100U	1	
C4514	ECUM1H223KBN	C. CAPACITOR CH 50V 0.022U	1	
C4515	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
C4516	VCEA0JAW330	E. CAPACITOR 6.3V 33U	1	
C4517	ECA1CAK100X	E. CAPACITOR 16V 10U	1	
C4518	ECQB1H223JF	P. CAPACITOR 50V 0.022U	1	
C4519	ECQB1H472JF	P. CAPACITOR 50V 4700P	1	
C4520	VCEA0JCB470	E. CAPACITOR 6.3V 47U	1	
C4521, 22	ECUM1H152KBN	C. CAPACITOR CH 50V 1500P	2	
C6002	ECUM1H221JCN	C. CAPACITOR CH 50V 220P	1	
C6003	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	
C6006, 07	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	2	
C6009	ECUM1H221JCN	C. CAPACITOR CH 50V 220P	1	
C6012, 13	ECUM1H101JCN	C. CAPACITOR CH 50V 100P	2	
C6015	ECUM1H150JCN	C. CAPACITOR CH 50V 15P	1	
C6016	ECUM1H180JCN	C. CAPACITOR CH 50V 18P	1	
C6017	ECUM1H100DCN	C. CAPACITOR CH 50V 10P	1	
C6018	ECUM1H180JCN	C. CAPACITOR CH 50V 18P	1	
C6019, 20	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	2	
C6021	VCEA0JCB101	E. CAPACITOR 6.3V 100U	1	
C6023	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	
C6024	VCEA0JEC471	E. CAPACITOR 6.3V 470U	1	
C6031	ECUM1H330JCN	C. CAPACITOR CH 50V 33P	1	
C6033	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
C7301	ECUX1H103ZFV	C. CAPACITOR CH 50V 0.01U	1	
C7302	VCEA0JAW101	E. CAPACITOR 6.3V 100U	1	
C7303	ECUX1H103ZFV	C. CAPACITOR CH 50V 0.01U	1	
C7304	VCEA0JAW101	E. CAPACITOR 6.3V 100U	1	
C7305, 06	ECUX1H330JCV	C. CAPACITOR CH 50V 33P	2	
C7307	ECUX1H470JCV	C. CAPACITOR CH 50V 47P	1	
C7308	ECEA1HKA2R2	E. CAPACITOR 50V 2.2U	1	
C7311	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	1	
C7312, 13	ECUX1C104ZFV	C. CAPACITOR CH 16V 0.1U	2	
C7315	ECUM1E104KBN	C. CAPACITOR CH 25V 0.1U	1	
C7316	ECUX1C104ZFV	C. CAPACITOR CH 16V 0.1U	1	
C7317	VCEA1CAW100	E. CAPACITOR 16V 10U	1	
C7318	VCEA0JAW470	E. CAPACITOR 6.3V 47U	1	
C7319, 20	VCEA1CAW100	E. CAPACITOR 16V 10U	2	
C7321	ECUX1C104ZFV	C. CAPACITOR CH 16V 0.1U	1	
C7322, 23	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	2	
C7324-26	ECUX1C104ZFV	C. CAPACITOR CH 16V 0.1U	3	
C7327	ECUM1C334KBN	C. CAPACITOR CH 16V 0.33U	1	
C7328	ECUM1E333KBN	C. CAPACITOR CH 25V 0.033U	1	
C7329	ECUX1H150JCV	C. CAPACITOR CH 50V 15P	1	
C7330	ECUX1H390JCV	C. CAPACITOR CH 50V 39P	1	
C7501	VCEA1HCB100	E. CAPACITOR 50V 10U	1	
C7502	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	
C7503	VCEA0JCB101	E. CAPACITOR 6.3V 100U	1	
C7505	ECUM1H120JCN	C. CAPACITOR CH 50V 12P	1	
C7603	ECUM1C224ZFN	C. CAPACITOR CH 16V 0.22U	1	
C7606	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
C7608	VCEA1HCB100	E. CAPACITOR 50V 10U	1	
C7609	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	
C7611	VCEA0JCB101	E. CAPACITOR 6.3V 100U	1	
C7612	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
C7613	VCEA0JCB101	E. CAPACITOR 6.3V 100U	1	
C7704	VCEA0JCB101	E. CAPACITOR 6.3V 100U	1	
C7705	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	
C7706	ECUM1H102KBN	C. CAPACITOR CH 50V 1000P	1	
C7707	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
C7708	ECUM1H222KBN	C. CAPACITOR CH 50V 2200P	1	
C7709	ECUM1C105ZFN	C. CAPACITOR CH 16V 1U	1	
D1001	MA4051N-M	DIODE	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
D1002	1SS254	DIODE	1	
D1003	MA4120N-M	DIODE	1	
D1004	1SS254	DIODE	1	
D1005	MA4051N-M	DIODE	1	
D1006	1SS254	DIODE	1	
D2501	MA723VT	DIODE	1	
D2502	1SS254	DIODE	1	
D4001	1SS254	DIODE	1	
D4501-03	1SS254	DIODE	3	
D6001-03	RB441P	DIODE	3	
D6004, 05	1SS254	DIODE	2	
D6006	SIR505S	DIODE	1	
D6007-10	1SS254	DIODE	4	
D7302	BB135	DIODE	1	
D7501	MA4180N	DIODE	1	
D7505	1SS254	DIODE	1	
D7601	MA4300N-M	DIODE	1	
DP7501	VSL0505	DISPLAY TUBE	1	
FL7301	VLF0633	FILTER	1	
IC1001	PQ20VB2E	IC	1	
IC2501	AN3811NK	IC	1	
IC3001	TDA9735HV2	IC	1	
IC4501	BH7803K	IC	1	
IC6001	PNA4611M02VT	IR RECEIVER UNIT	1	
IC6002	PST993D	IC	1	
IC6004, 05	RPI354N	IC	2	
IC6007	MN101D02GMA	IC	1	
IC7301	TDA9874H	IC	1	
IC7302	PST7043	IC	1	
IC7501	M35502AFP	IC	1	
⚠ IP1001, 02	UNH000300A	IC PROTECTOR	2	
⚠ IP1003	VSF0015A025	IC PROTECTOR	1	
⚠ IP1004	UNH000300A	IC PROTECTOR	1	
JK3001	VJJ0559	RCA PIN JACK (6-PIN)	1	
K1002	ERJ6GMZ0R00	M. RESISTOR CH 1/10W 0	1	
K2001	ERJ6GMZ0R00	M. RESISTOR CH 1/10W 0	1	
K4002, 03	ERJ6GMZ0R00	M. RESISTOR CH 1/10W 0	2	
K7301, 02	ERJ6GEY0R00	M. RESISTOR CH 1/10W 0	2	
K7304	ERJ6GEY0R00	M. RESISTOR CH 1/10W 0	1	
K7602	ERJ6GMZ0R00	M. RESISTOR CH 1/10W 0	1	
L3002	VLQ0599J390	COIL 39UH	1	
L3003	VLQ0599J121	COIL 120UH	1	
L3004	VLQ0599J220	COIL 22UH	1	
L3005	VLQ0599J151	COIL 150UH	1	
L3006-11	VLQ0599J680	COIL 68UH	6	
L3012	VLQ0599J270	COIL 27UH	1	
L4001	VLQEL07F153J	COIL 15MH	1	
L4003	VLQ0599J121	COIL 120UH	1	
L4026	VLQ0599J121	COIL 120UH	1	
L7301	VLQ0599J3R3	COIL 3.3UH	1	
L7302	VLQ0599J1R0	COIL 1UH	1	
L7604, 05	VLQ0599J330	COIL 33UH	2	
L7607	VLQ0599J100	COIL 10UH	1	
L7701	VLQ0599J680	COIL 68UH	1	
LB4001	ERJ6GMZ0R00	M. RESISTOR CH 1/10W 0	1	
LB4004	ERJ6GMZ0R00	M. RESISTOR CH 1/10W 0	1	
LB6002	ERJ6GMZ0R00	M. RESISTOR CH 1/10W 0	1	
LB7301-04	VLP0150	COIL	4	
P1001	VJS3917A016W	CONNECTOR (FEMALE) 16P	1	
P2001	VJP3835A012	CONNECTOR (MALE) 12P	1	
P2501	VJS3537A009G	CONNECTOR (FEMALE) 9P	1	
P3001	VJS3537A016G	CONNECTOR (FEMALE) 16P	1	
P3002	VJS3478A005T	CONNECTOR (FEMALE) 5P	1	
P4001	VJS3537A006G	CONNECTOR (FEMALE) 6P	1	
P4002	VJS3837A002	CONNECTOR (FEMALE) 2P	1	
P6002	VJS3837A002	CONNECTOR (FEMALE) 2P	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
P6003	VJS3905	DEW SENSOR CONNECTOR	1	
P7501	VJP3630A010G	CONNECTOR (MALE) 10P	1	
PK7301	VJR0777B007W	CONNECTOR (MALE) 7P	1	
PK7302	VJR0777B006W	CONNECTOR (MALE) 6P	1	
Q1001	2SC3940A	TRANSISTOR	1	
Q1002, 03	2SD1996	TRANSISTOR	2	
Q1005	2SD1996	TRANSISTOR	1	
Q1009	2SD602A	TRANSISTOR	1	
Q3002	2SB709A	TRANSISTOR	1	
Q3005	MSB709-R	TRANSISTOR-RESISTOR	1	
Q3006	MSD601-R	TRANSISTOR-RESISTOR	1	
Q3007	2SA1022	TRANSISTOR	1	
Q3008	XN1501	TWIN TRANSISTOR	1	
Q3009	MSB709-R	TRANSISTOR-RESISTOR	1	
Q4002	MSD602-R	TRANSISTOR	1	
Q4003	2SB1321	TRANSISTOR	1	
Q4004	MSD602-R	TRANSISTOR	1	
Q4005	2SD1149	TRANSISTOR	1	
Q4006	2SD601A	TRANSISTOR	1	
Q4009	MSB710-R	TRANSISTOR	1	
Q4501	MSD601-R	TRANSISTOR-RESISTOR	1	
Q4502	2SA1515	TRANSISTOR	1	
Q4503	MSD1328-R	TRANSISTOR	1	
Q6001	PNB2301MBV	TRANSISTOR	1	
Q6002	PNB2301MAV	TRANSISTOR	1	
Q7701	2SB709A	TRANSISTOR	1	
QR1011	MUN2112	TRANSISTOR-RESISTOR	1	
QR3003, 04	MUN2213	TRANSISTOR-RESISTOR	2	
QR4004	MUN2111	TRANSISTOR-RESISTOR	1	
QR4501	MUN2212	TRANSISTOR-RESISTOR	1	
QR6001	MUN2211	TRANSISTOR-RESISTOR	1	
R1001	ERDS2TJ561	C. RESISTOR 1/4W 560	1	
R1002	ERDS2TJ103	C. RESISTOR 1/4W 10K	1	
R1004	ERJ6GMYJ182	M. RESISTOR CH 1/10W 1.8K	1	
R1010	ERJ6GMYG683	M. RESISTOR CH 1/10W 68K	1	
R1011	ERJ6GMYG752	M. RESISTOR CH 1/10W 7.5K	1	
R1012	ERJ6GMYG433	M. RESISTOR CH 1/10W 43K	1	
R1013, 14	ERJ6GMYJ562	M. RESISTOR CH 1/10W 5.6K	2	
R1018, 19	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	2	
R1022	ERDS2TJ561	C. RESISTOR 1/4W 560	1	
R2001	ERJ6GMYJ392	M. RESISTOR CH 1/10W 3.9K	1	
R2002	ERJ6GMYJ222	M. RESISTOR CH 1/10W 2.2K	1	
R2003	ERJ6GMYJ273	M. RESISTOR CH 1/10W 27K	1	
R2004	ERJ6GMYG393	M. RESISTOR CH 1/10W 39K	1	
R2501	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	1	
R2502, 03	ERDS2TJ330	C. RESISTOR 1/4W 33	2	
R2504	ERDS2TJ1R2	C. RESISTOR 1/4W 1.2	1	
R2505	ERDS2TJ331	C. RESISTOR 1/4W 330	1	
R2506	ERDS2TJ1R5	C. RESISTOR 1/4W 1.5	1	
R2507	ERDS2TJ330	C. RESISTOR 1/4W 33	1	
R3001	ERDS2TJ471	C. RESISTOR 1/4W 470	1	
R3003	ERJ6GMYJ223	M. RESISTOR CH 1/10W 22K	1	
R3004	ERJ6GMYJ471	M. RESISTOR CH 1/10W 470	1	
R3005	ERJ6GMYJ331	M. RESISTOR CH 1/10W 330	1	
R3007	ERJ6GMYJ750	M. RESISTOR CH 1/10W 75	1	
R3008	ERJ6GMYJ222	M. RESISTOR CH 1/10W 2.2K	1	
R3009	ERJ6GMYJ750	M. RESISTOR CH 1/10W 75	1	
R3011	ERJ6GMYJ102	M. RESISTOR CH 1/10W 1K	1	
R3012	ERJ6GMYJ221	M. RESISTOR CH 1/10W 220	1	
R3013	ERJ6GMYJ152	M. RESISTOR CH 1/10W 1.5K	1	
R3017	ERJ6GMYJ333	M. RESISTOR CH 1/10W 33K	1	
R3018	ERJ6GMYG301	M. RESISTOR CH 1/10W 300	1	
R3019	ERJ6GMYJ472	M. RESISTOR CH 1/10W 4.7K	1	
R3020	ERJ6GMYJ393	M. RESISTOR CH 1/10W 39K	1	
R3021	ERJ6GMYJ183	M. RESISTOR CH 1/10W 18K	1	
R3022	ERJ6GMYJ182	M. RESISTOR CH 1/10W 1.8K	1	
R3023	ERJ6GMYJ272	M. RESISTOR CH 1/10W 2.7K	1	
R3024	ERJ6GMYJ152	M. RESISTOR CH 1/10W 1.5K	1	
R3025	ERJ6GMYJ473	M. RESISTOR CH 1/10W 47K	1	
R3026	ERJ6GMYJ684	M. RESISTOR CH 1/10W 680K	1	
R3027	ERJ6GMYJ224	M. RESISTOR CH 1/10W 220K	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R3028	ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R3029	ERJ6GMYJ331	M.RESISTOR CH 1/10W 330	1	
R3030, 31	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	2	
R3032	ERJ6GMYJ271	M.RESISTOR CH 1/10W 270	1	
R3033, 34	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	2	
R3035	ERJ6GMYJ271	M.RESISTOR CH 1/10W 270	1	
R3037	ERJ6GMYJ822	M.RESISTOR CH 1/10W 8.2K	1	
R3039	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R3040	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R3043	ERJ6GMYJ821	M.RESISTOR CH 1/10W 820	1	
R3046	ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R3047	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R3048	ERJ6GMYJ271	M.RESISTOR CH 1/10W 270	1	
R3049	ERJ6GMYJ124	M.RESISTOR CH 1/10W 120K	1	
R3050	ERJ6GMYJ563	M.RESISTOR CH 1/10W 56K	1	
R3051	ERJ6GMYG123	M.RESISTOR CH 1/10W 12K	1	
R3052	ERJ6GMYG223	M.RESISTOR CH 1/10W 22K	1	
R3053	ERJ6GMYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R3054	ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R3055	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R4001	ERJ6GMYJ334	M.RESISTOR CH 1/10W 330K	1	
R4002	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R4003	ERJ6GMYJ241	M.RESISTOR CH 1/10W 240	1	
R4004	ERJ6GMYJ273	M.RESISTOR CH 1/10W 27K	1	
R4005	ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R4006	ERJ6GMYJ163	M.RESISTOR CH 1/10W 16K	1	
R4007	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R4008	ERJ6GMYJ391	M.RESISTOR CH 1/10W 390	1	
R4009	ERJ6GMYJ331	M.RESISTOR CH 1/10W 330	1	
R4010	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R4011	ERJ6GMYK225	M.RESISTOR CH 1/10W 2.2M	1	
R4012	ERJ6GMYJ393	M.RESISTOR CH 1/10W 39K	1	
R4013	ERJ6GMYJ183	M.RESISTOR CH 1/10W 18K	1	
R4014	ERJ6GMYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R4015	ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R4016	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R4017	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R4019, 20	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	2	
R4023	ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R4024	ERJ6GMYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R4025	ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R4027, 28	ERJ6GMYJ472	M.RESISTOR CH 1/10W 4.7K	2	
R4029	ERJ6GMYJ682	M.RESISTOR CH 1/10W 6.8K	1	
R4030	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R4031	ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R4032, 33	ERJ6GMYJ822	M.RESISTOR CH 1/10W 8.2K	2	
R4035	ERJ6GMYJ183	M.RESISTOR CH 1/10W 18K	1	
R4037	ERJ6GMYJ471	M.RESISTOR CH 1/10W 470	1	
R4058	ERJ6GMYJ682	M.RESISTOR CH 1/10W 6.8K	1	
R4063	ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R4501, 02	ERJ6GMYJ513	M.RESISTOR CH 1/10W 51K	2	
R4503, 04	ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	2	
R4505	ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R4506, 07	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	2	
R4508	ERDS2TJ471	C.RESISTOR 1/4W 470	1	
R4510	ERDS2TJ471	C.RESISTOR 1/4W 470	1	
R4513-16	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	4	
R4517	ERJ6GMYJ393	M.RESISTOR CH 1/10W 39K	1	
R4518	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R4519	ERJ6GMYJ393	M.RESISTOR CH 1/10W 39K	1	
R4520	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R4521	ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R4522	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R4523	ERJ6GMYJ393	M.RESISTOR CH 1/10W 39K	1	
R4524	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R4527, 28	ERJ6RBD273	M.RESISTOR CH 1/10W 27K	2	
R4529	ERJ6GMYJ393	M.RESISTOR CH 1/10W 39K	1	
R4530	ERJ6GMYK225	M.RESISTOR CH 1/10W 2.2M	1	
R6001	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R6002	ERJ6GMYJ393	M.RESISTOR CH 1/10W 39K	1	
R6003	ERJ6GMYJ273	M.RESISTOR CH 1/10W 27K	1	
R6004	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R6005	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R6006, 07	ERJ6GMYJ273	M.RESISTOR CH 1/10W 27K	2	
R6008	ERDS2TJ181	C.RESISTOR 1/4W 180	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R6009	ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R6010	ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R6011	ERJ6GMYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R6012	ERJ6GMYJ123	M.RESISTOR CH 1/10W 12K	1	
R6013	ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R6014	ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R6015	ERJ6GMYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R6017, 18	ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	2	
R6020	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R6021	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R6023, 24	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	2	
R6027	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R6028	ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R6029	ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R6030	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R6031	ERJ6GMYJ105	M.RESISTOR CH 1/10W 1M	1	
R6033	ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	1	
R6035	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R6036, 37	ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	2	
R6041	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R6043	ERJ6GMYJ244	M.RESISTOR CH 1/10W 240K	1	
R6044	ERDS2TJ121	C.RESISTOR 1/4W 120	1	
R6045	ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R6052, 53	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	2	
R6055	ERJ6GMYJ334	M.RESISTOR CH 1/10W 330K	1	
R7302	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R7305, 06	ERJ6GEYJ101	M.RESISTOR CH 1/10W 100	2	
R7316	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R7318	ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R7324	ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	
R7325	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R7326	ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	
R7327	ERJ3GEYJ822	M.RESISTOR CH 1/16W 8.2K	1	
R7328, 29	ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	2	
R7501, 02	ERJ6GMYG114	M.RESISTOR CH 1/10W 110K	2	
R7504	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R7505	ERJ6GMYG363	M.RESISTOR CH 1/10W 36K	1	
R7509	ERJ6GMYG182	M.RESISTOR CH 1/10W 1.8K	1	
R7510	ERDS2TJ180	C.RESISTOR 1/4W 18	1	
R7512, 13	ERJ6GMYG123	M.RESISTOR CH 1/10W 12K	2	
R7514	ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	1	
R7516	ERDS2TJ102	C.RESISTOR 1/4W 1K	1	
R7518	ERDS2TJ150	C.RESISTOR 1/4W 15	1	
R7529	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R7604	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R7605, 06	ERG2SJ331	M.RESISTOR 2W 330	2	
R7608	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R7611-14	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	4	
R7704	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R7705, 06	ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	2	
R7708	ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
S6001	VES0834	S-TAB SWITCH	1	
S6002	VSS0520	MODE SELECT SWITCH	1	
S7501-04	EVQ11L07B	SWITCH	4	
T4001	EQQ7QF025Q	TRANSFORMER	1	
T4002	EQQ7QF026Q	TRANSFORMER	1	
⚠ TU7601	ENG57806G1	TUNER	1	
X3001	VSX0162	CRYSTAL OSCILLATOR	1	
X3002	VSX0160	CRYSTAL OSCILLATOR	1	
X6001	VSX0660	CRYSTAL OSCILLATOR	1	
X6002	VSX0365	CRYSTAL OSCILLATOR	1	
X7302	VSX0953	CRYSTAL OSCILLATOR	1	
		MISCELLANEOUS		
	VXQ0648	FIP HOLDER	1	
	VSC4753	SHIELD CASE (BOTTOM)	1	FOR NICAM DECODER C.B.A.
	VSC4752	SHIELD CASE (MAIN)	1	FOR NICAM DECODER C.B.A.

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
■	VEP06C93M	MAIN C.B.A.		(RTL)
				NV-HD675BD
B6001	CR2354-1GUF	LITHIUM BATTERY	1	
C0701	ECUX1C104KBV	C. CAPACITOR CH 16V 0.1U	1	
C0702	ECUX1H102KBV	C. CAPACITOR CH 50V 1000P	1	
C0703	ECUM1A105KBN	C. CAPACITOR CH 10V 1U	1	
C0704	ECUM1E333ZFN	C. CAPACITOR CH 25V 0.033U	1	
C0706, 07	ECEA1HKA010	E. CAPACITOR 50V 1U	2	
C0708	ECEA1HKAR47	E. CAPACITOR 50V 0.47U	1	
C0709, 10	ECUX1H103ZFV	C. CAPACITOR CH 50V 0.01U	2	
C0711	ECEA1CKA220	E. CAPACITOR 16V 22U	1	
C0712	ECUX1C104ZFV	C. CAPACITOR CH 16V 0.1U	1	
C0713	ECEA0JKA331	E. CAPACITOR 6.3V 330U	1	
C0714	ECUM1C105ZFN	C. CAPACITOR CH 16V 1U	1	
C0715	ERJ6GEY0R00	M. RESISTOR CH 1/10W 0	1	
C0716	ECUX1H123KBV	C. CAPACITOR CH 50V 0.012U	1	
C0717	ECUM1H330GUV	C. CAPACITOR CH 50V 33P	1	
C0718	ECEA1CKN100	E. CAPACITOR 16V 10U	1	
C0719	ECUX1H103ZFV	C. CAPACITOR CH 50V 0.01U	1	
C0720	ECUX1H331JCV	C. CAPACITOR CH 50V 330P	1	
C0722	ECUX1H331JCV	C. CAPACITOR CH 50V 330P	1	
C1001	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
C1002	VCEA0JCB220	E. CAPACITOR 6.3V 22U	1	
C1003	VCEA0JCB101	E. CAPACITOR 6.3V 100U	1	
C1004	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
C1005	VCEA1CCB470	E. CAPACITOR 16V 47U	1	
C1007	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
C1008	VCEA0JBS470	E. CAPACITOR 6.3V 47U	1	
C1009	VCEA0JBS101	E. CAPACITOR 6.3V 100U	1	
C1011	VCEA1ECB470	E. CAPACITOR 25V 47U	1	
C1014	VCEA0JCB101	E. CAPACITOR 6.3V 100U	1	
C1015	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
C2001	ECEA1CKN220	E. CAPACITOR 16V 22U	1	
C2006	ECUM1C474KBN	C. CAPACITOR CH 16V 0.47U	1	
C2008	ECUM1H392KBN	C. CAPACITOR CH 50V 3900P	1	
C2009	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	
C2010	VCEA1HCB4R7	E. CAPACITOR 50V 4.7U	1	
C2011	ECUM1H222KBN	C. CAPACITOR CH 50V 2200P	1	
C2012	ECUM1H563KBN	C. CAPACITOR CH 50V 0.056U	1	
C2013	VCEA1HCB3R3	E. CAPACITOR 50V 3.3U	1	
C2501, 02	ECUM1H563KBN	C. CAPACITOR CH 50V 0.056U	2	
C2503	ECEA1VKN4R7	E. CAPACITOR 35V 4.7U	1	
C2504	VCEA1ECB470	E. CAPACITOR 25V 47U	1	
C2505	ECEA1VKN4R7	E. CAPACITOR 35V 4.7U	1	
C2506	VCEA0JCB221	E. CAPACITOR 6.3V 220U	1	
C2507	ECUM1H473ZFN	C. CAPACITOR CH 50V 0.047U	1	
C2508	ECUM1C683KBN	C. CAPACITOR CH 16V 0.068U	1	
C2509-11	ECUM1C154KBN	C. CAPACITOR CH 16V 0.15U	3	
C2512	ECEA1VKN4R7	E. CAPACITOR 35V 4.7U	1	
C3001	VCEA1CCB470	E. CAPACITOR 16V 47U	1	
C3003	VCEA0JEC471	E. CAPACITOR 6.3V 470U	1	
C3004	ECUM1H560JCN	C. CAPACITOR CH 50V 56P	1	
C3005	ECUM1E104KBN	C. CAPACITOR CH 25V 0.1U	1	
C3006	ECUM1H220JCN	C. CAPACITOR CH 50V 22P	1	
C3007	ECUM1H821JCN	C. CAPACITOR CH 50V 820P	1	
C3008	VCEA1HCB010	E. CAPACITOR 50V 1U	1	
C3009	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	
C3010	ECUM1H680JCN	C. CAPACITOR CH 50V 68P	1	
C3011	ECUM1H120JCN	C. CAPACITOR CH 50V 12P	1	
C3012	ECUM1E104KBN	C. CAPACITOR CH 25V 0.1U	1	
C3013	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
C3014	ECUM1E104KBN	C. CAPACITOR CH 25V 0.1U	1	
C3015	VCEA0JCB221	E. CAPACITOR 6.3V 220U	1	
C3016	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	
C3017	VCEA1HCB010	E. CAPACITOR 50V 1U	1	
C3018	ECUM1H103KBN	C. CAPACITOR CH 50V 0.01U	1	
C3019	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	
C3020	VCEA0JCB101	E. CAPACITOR 6.3V 100U	1	
C3021	ECUM1E104KBN	C. CAPACITOR CH 25V 0.1U	1	
C3022	ECUM1H222KBN	C. CAPACITOR CH 50V 2200P	1	
C3024	ECUM1H221JCN	C. CAPACITOR CH 50V 220P	1	
C3026	VCEA1HCB3R3	E. CAPACITOR 50V 3.3U	1	
C3027	VCEA1HCBR33	E. CAPACITOR 50V 0.33U	1	
C3028	VCEA0JCB470	E. CAPACITOR 6.3V 47U	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C3029	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	
C3030	VCEA0JCB101	E. CAPACITOR 6.3V 100U	1	
C3031	VCEA0JCB220	E. CAPACITOR 6.3V 22U	1	
C3032	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
C3033	VCEA1HCBR47	E. CAPACITOR 50V 0.47U	1	
C3034	ECUM1H222KBN	C. CAPACITOR CH 50V 2200P	1	
C3035	VCEA1ECB4R7	E. CAPACITOR 25V 4.7U	1	
C3036	ECUM1H560JCN	C. CAPACITOR CH 50V 56P	1	
C3037	VCEA1ECB4R7	E. CAPACITOR 25V 4.7U	1	
C3038	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	
C3039	VCEA0JCB221	E. CAPACITOR 6.3V 220U	1	
C3040	VCEA1ECB4R7	E. CAPACITOR 25V 4.7U	1	
C3041	VCEA0JCB221	E. CAPACITOR 6.3V 220U	1	
C3042	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	
C3043	VCEA0JCB220	E. CAPACITOR 6.3V 22U	1	
C3044	ECUM1E563KBN	C. CAPACITOR CH 25V 0.056U	1	
C3045	VCEA1CCB100	E. CAPACITOR 16V 10U	1	
C3046	ECUM1H561JCN	C. CAPACITOR CH 50V 560P	1	
C3047	ECUM1H221JCN	C. CAPACITOR CH 50V 220P	1	
C3048, 49	ECUM1H102KBN	C. CAPACITOR CH 50V 1000P	2	
C3051, 52	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	2	
C3054	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
C3055	ECUM1H180JCN	C. CAPACITOR CH 50V 18P	1	
C3056	VCEA1HCB3R3	E. CAPACITOR 50V 3.3U	1	
C4001	ECUM1C105ZFN	C. CAPACITOR CH 16V 1U	1	
C4002	ECUM1H822KBN	C. CAPACITOR CH 50V 8200P	1	
C4003	VCEA0JCB220	E. CAPACITOR 6.3V 22U	1	
C4004	ECUM1H182JCN	C. CAPACITOR CH 50V 1800P	1	
C4005	ECUM1H272KBN	C. CAPACITOR CH 50V 2700P	1	
C4006	VCEA1HCB010	E. CAPACITOR 50V 1U	1	
C4007	VCEA1ECB4R7	E. CAPACITOR 25V 4.7U	1	
C4008	ECUM1H822KBN	C. CAPACITOR CH 50V 8200P	1	
C4009	ECUM1E273KBN	C..CAPACITOR CH 25V 0.027U	1	
C4010	ECUM1H822KBN	C. CAPACITOR CH 50V 8200P	1	
C4011	VCEA1CCB100	E. CAPACITOR 16V 10U	1	
C4012	VCEA0JCB470	E. CAPACITOR 6.3V 47U	1	
C4013	VCEA0JCB220	E. CAPACITOR 6.3V 22U	1	
C4014, 15	VCEA1HCBR33	E. CAPACITOR 50V 0.33U	2	
C4016	ECKF1H102KB	C. CAPACITOR 50V 1000P	1	
C4018	ECUM1H223KBN	C. CAPACITOR CH 50V 0.022U	1	
C4020	VCEA0JCB221	E. CAPACITOR 6.3V 220U	1	
C4021	ECQV1H154JM	P. CAPACITOR 50V 0.15U	1	
C4023	ECUM1H472KBN	C. CAPACITOR CH 50V 4700P	1	
C4024	ECQB1H333JF	P. CAPACITOR 50V 0.033U	1	
C4025	ECUM1H222KBN	C. CAPACITOR CH 50V 2200P	1	
C4026	ECUM1H223KBN	C. CAPACITOR CH 50V 0.022U	1	
C4027, 28	VCEA0JCB470	E. CAPACITOR 6.3V 47U	2	
C4037	VCEA1HCBR33	E. CAPACITOR 50V 0.33U	1	
C4042	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
C4078	VCEA0JCB470	E. CAPACITOR 6.3V 47U	1	
C4501	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
C4502	ECA1CAK100X	E. CAPACITOR 16V 10U	1	
C4503	ECQB1H223JF	P. CAPACITOR 50V 0.022U	1	
C4504	ECQB1H472JF	P. CAPACITOR 50V 4700P	1	
C4506	VCEA1HCB4R7	E. CAPACITOR 50V 4.7U	1	
C4509, 10	ECA0JAK101X	E. CAPACITOR 6.3V 100U	2	
C4511	ECA1HAK4R7	E. CAPACITOR 50V 4.7U	1	
C4512	VCEA0JAW330	E. CAPACITOR 6.3V 33U	1	
C4513	ECA0JAK101X	E. CAPACITOR 6.3V 100U	1	
C4514	ECUM1H223KBN	C. CAPACITOR CH 50V 0.022U	1	
C4515	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
C4516	VCEA0JAW330	E. CAPACITOR 6.3V 33U	1	
C4517	ECA1CAK100X	E. CAPACITOR 16V 10U	1	
C4518	ECQB1H223JF	P. CAPACITOR 50V 0.022U	1	
C4519	ECQB1H472JF	P. CAPACITOR 50V 4700P	1	
C4520	VCEA0JCB470	E. CAPACITOR 6.3V 47U	1	
C4521, 22	ECUM1H152KBN	C. CAPACITOR CH 50V 1500P	2	
C6002	ECUM1H221JCN	C. CAPACITOR CH 50V 220P	1	
C6003	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	
C6006, 07	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	2	
C6009	ECUM1H221JCN	C. CAPACITOR CH 50V 220P	1	
C6010	ECUM1H102KBN	C. CAPACITOR CH 50V 1000P	1	
C6012, 13	ECUM1H101JCN	C. CAPACITOR CH 50V 100P	2	
C6015	ECUM1H150JCN	C. CAPACITOR CH 50V 15P	1	
C6016	ECUM1H180JCN	C. CAPACITOR CH 50V 18P	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C6017	ECUM1H100DCN	C. CAPACITOR CH 50V 10P	1	
C6018	ECUM1H180JCN	C. CAPACITOR CH 50V 18P	1	
C6019, 20	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	2	
C6021	VCEA0JCB101	E. CAPACITOR 6.3V 100U	1	
C6023	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	
C6024	VCEA0JEC471	E. CAPACITOR 6.3V 470U	1	
C6031	ECUM1H330JCN	C. CAPACITOR CH 50V 33P	1	
C6033	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
C7301	ECUX1H103ZFV	C. CAPACITOR CH 50V 0.01U	1	
C7302	VCEA0JAW101	E. CAPACITOR 6.3V 100U	1	
C7303	ECUX1H103ZFV	C. CAPACITOR CH 50V 0.01U	1	
C7304	VCEA0JAW101	E. CAPACITOR 6.3V 100U	1	
C7305, 06	ECUX1H330JCV	C. CAPACITOR CH 50V 33P	2	
C7307	ECUX1H470JCV	C. CAPACITOR CH 50V 47P	1	
C7308	ECEA1HKA2R2	E. CAPACITOR 50V 2.2U	1	
C7311	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	1	
C7312, 13	ECUX1C104ZFV	C. CAPACITOR CH 16V 0.1U	2	
C7315	ECUM1E104KBN	C. CAPACITOR CH 25V 0.1U	1	
C7316	ECUX1C104ZFV	C. CAPACITOR CH 16V 0.1U	1	
C7317	VCEA1CAW100	E. CAPACITOR 16V 10U	1	
C7318	VCEA0JAW470	E. CAPACITOR 6.3V 47U	1	
C7319, 20	VCEA1CAW100	E. CAPACITOR 16V 10U	2	
C7321	ECUX1C104ZFV	C. CAPACITOR CH 16V 0.1U	1	
C7322, 23	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	2	
C7324~26	ECUX1C104ZFV	C. CAPACITOR CH 16V 0.1U	3	
C7327	ECUM1C334KBN	C. CAPACITOR CH 16V 0.33U	1	
C7328	ECUM1E333KBN	C. CAPACITOR CH 25V 0.033U	1	
C7329	ECUX1H150JCV	C. CAPACITOR CH 50V 15P	1	
C7330	ECUX1H390JCV	C. CAPACITOR CH 50V 39P	1	
C7501	VCEA1HCB100	E. CAPACITOR 50V 10U	1	
C7502	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	
C7503	VCEA0JCB101	E. CAPACITOR 6.3V 100U	1	
C7505	ECUM1H120JCN	C. CAPACITOR CH 50V 12P	1	
C7603	ECUM1C224ZFN	C. CAPACITOR CH 16V 0.22U	1	
C7606	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
C7608	VCEA1HCB100	E. CAPACITOR 50V 10U	1	
C7609	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	
C7611	VCEA0JCB101	E. CAPACITOR 6.3V 100U	1	
C7612	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
C7613	VCEA0JCB101	E. CAPACITOR 6.3V 100U	1	
C7617	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	
C7703	ECUM1H101JCN	C. CAPACITOR CH 50V 100P	1	
C7704	VCEA0JCB101	E. CAPACITOR 6.3V 100U	1	
C7705	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	
C7706	ECUM1H102KBN	C. CAPACITOR CH 50V 1000P	1	
C7707	ECUM1H103ZFN	C. CAPACITOR CH 50V 0.01U	1	
C7708	ECUM1H222KBN	C. CAPACITOR CH 50V 2200P	1	
C7709	ECUM1C105ZFN	C. CAPACITOR CH 16V 1U	1	
D0701, 02	MA77	DIODE	2	
D1001	MA4051N-M	DIODE	1	
D1002	1SS254	DIODE	1	
D1003	MA4120N-M	DIODE	1	
D1004	1SS254	DIODE	1	
D1005	MA4051N-M	DIODE	1	
D1006	1SS254	DIODE	1	
D2501	MA723VT	DIODE	1	
D2502	1SS254	DIODE	1	
D4001	1SS254	DIODE	1	
D4501-03	1SS254	DIODE	3	
D6001-03	RB441P	DIODE	3	
D6004, 05	1SS254	DIODE	2	
D6006	SIR505S	DIODE	1	
D6007-10	1SS254	DIODE	4	
D7302	BB135	DIODE	1	
D7501	MA4180N	DIODE	1	
D7505	1SS254	DIODE	1	
D7601	MA4300N-M	DIODE	1	
DP7501	VSL0505	DISPLAY TUBE	1	
FL7301	VLF0633	FILTER	1	
IC0701	LA75501M	IC	1	
IC1001	PQ20VB2E	IC	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
IC2501	AN3811NK	IC	1	
IC3001	TDA9735HV2	IC	1	
IC4501	BH7803K	IC	1	
IC6001	PNA4611M02VT	IR RECEIVER UNIT	1	
IC6002	PST993D	IC	1	
IC6004, 05	RPI354N	IC	2	
IC6007	MN101D02GMA	IC	1	
IC7301	TDA9874H	IC	1	
IC7302	PST7043	IC	1	
IC7501	M35502AFP	IC	1	
IC7701	MC74H4066F	IC	1	
⚠ IP1001, 02	UNH000300A	IC PROTECTOR	2	
⚠ IP1003	VSF0015A025	IC PROTECTOR	1	
⚠ IP1004	UNH000300A	IC PROTECTOR	1	
JK3001	VJJ0559	RCA PIN JACK (6P)	1	
K0704	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	1	
K0707	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	1	
K1002	ERJ6GMZ0R00	M. RESISTOR CH 1/10W 0	1	
K2001	ERJ6GMZ0R00	M. RESISTOR CH 1/10W 0	1	
K4002, 03	ERJ6GMZ0R00	M. RESISTOR CH 1/10W 0	2	
K7301, 02	ERJ6GEY0R00	M. RESISTOR CH 1/10W 0	2	
K7304	ERJ6GEY0R00	M. RESISTOR CH 1/10W 0	1	
K7602	ERJ6GMZ0R00	M. RESISTOR CH 1/10W 0	1	
K7701	ERJ6GMZ0R00	M. RESISTOR CH 1/10W 0	1	
L0701	VLQ0163JR47	COIL 0.47UH	1	
L0702	ELJFA151KB	CHIP INDUCTOR 150UH	1	
L0703	VLQ0163J1R2	COIL 1.2UH	1	
L3002	VLQ0599J390	COIL 39UH	1	
L3003	VLQ0599J121	COIL 120UH	1	
L3004	VLQ0599J220	COIL 22UH	1	
L3005	VLQ0599J151	COIL 150UH	1	
L3006-11	VLQ0599J680	COIL 68UH	6	
L3012	VLQ0599J270	COIL 27UH	1	
L4001	VLQEL07F153J	COIL 15MH	1	
L4003	VLQ0599J121	COIL 120UH	1	
L4026	VLQ0599J121	COIL 120UH	1	
L7301	VLQ0599J3R3	COIL 3.3UH	1	
L7302	VLQ0599J1R0	COIL 1UH	1	
L7601	VLQ0599J330	COIL 33UH	1	
L7604, 05	VLQ0599J330	COIL 33UH	2	
L7607	VLQ0599J100	COIL 10UH	1	
L7701	VLQ0599J680	COIL 68UH	1	
L7702	VLQ0599J100	COIL 10UH	1	
LB4001	ERJ6GMZ0R00	M. RESISTOR CH 1/10W 0	1	
LB4004	ERJ6GMZ0R00	M. RESISTOR CH 1/10W 0	1	
LB6002	ERJ6GMZ0R00	M. RESISTOR CH 1/10W 0	1	
LB7301-04	VLP0150	COIL	4	
P1001	VJS3917A016W	CONNECTOR (FEMALE) 16P	1	
P2001	VJP3835A012	CONNECTOR (MALE) 12P	1	
P2501	VJS3537A009G	CONNECTOR (FEMALE) 9P	1	
P3001	VJS3537A016G	CONNECTOR (FEMALE) 16P	1	
P3002	VJS3478A005T	CONNECTOR (FEMALE) 5P	1	
P4001	VJS3537A006G	CONNECTOR (FEMALE) 6P	1	
P4002	VJS3837A002	CONNECTOR (FEMALE) 2P	1	
P6002	VJS3837A002	CONNECTOR (FEMALE) 2P	1	
P6003	VJS3905	DEW SENSOR CONNECTOR	1	
P7501	VJP3630A010G	CONNECTOR (MALE) 10P	1	
PK0701	VJR0826E009W	CONNECTOR (MALE) 9P	1	
PK7301	VJR0777B007W	CONNECTOR (MALE) 7P	1	
PK7302	VJR0777B006W	CONNECTOR (MALE) 6P	1	
PP0701	VJP3589A004B	CONNECTOR (MALE) 4P	1	
Q0701	2SD601A-S	TRANSISTOR	1	
Q1001	2SC3940A	TRANSISTOR	1	
Q1002, 03	2SD1996	TRANSISTOR	2	
Q1005	2SD1996	TRANSISTOR	1	
Q1009	2SD602A	TRANSISTOR	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
Q3002	2SB709A	TRANSISTOR	1	
Q3005	MSB709-R	TRANSISTOR-RESISTOR	1	
Q3006	MSD601-R	TRANSISTOR-RESISTOR	1	
Q3007	2SA1022	TRANSISTOR	1	
Q3008	XN1501	TWIN TRANSISTOR	1	
Q3009	MSB709-R	TRANSISTOR-RESISTOR	1	
Q4002	MSD602-R	TRANSISTOR	1	
Q4003	2SB1321	TRANSISTOR	1	
Q4004	MSD602-R	TRANSISTOR	1	
Q4005	2SD1149	TRANSISTOR	1	
Q4006	2SD601A	TRANSISTOR	1	
Q4009	MSB710-R	TRANSISTOR	1	
Q4501	MSD601-R	TRANSISTOR-RESISTOR	1	
Q4502	2SA1515	TRANSISTOR	1	
Q4503	MSD1328-R	TRANSISTOR	1	
Q6001	PNB2301MBV	TRANSISTOR	1	
Q6002	PNB2301MAV	TRANSISTOR	1	
Q7701	2SB709A	TRANSISTOR	1	
QR0702	DTC363EK	DIGITAL TRANSISTOR	1	
QR0703	XN4213	TRANSISTOR-RESISTOR	1	
QR0706	DTC363EK	DIGITAL TRANSISTOR	1	
QR1011	MUN2112	TRANSISTOR-RESISTOR	1	
QR3003, 04	MUN2213	TRANSISTOR-RESISTOR	2	
QR3006	MUN2213	TRANSISTOR-RESISTOR	1	
QR4004	MUN2111	TRANSISTOR-RESISTOR	1	
QR4501	MUN2212	TRANSISTOR-RESISTOR	1	
QR6001	MUN2211	TRANSISTOR-RESISTOR	1	
R0703	ERJ6GEYJ223	M. RESISTOR CH 1/10W 22K	1	
R0704	ERJ3GEYJ223	M. RESISTOR CH 1/16W 22K	1	
R0705	ERJ3GEYJ362	M. RESISTOR CH 1/16W 3.6K	1	
R0706	ERJ3GEYJ562	M. RESISTOR CH 1/16W 5.6K	1	
R0707	ERJ3GEYJ393	M. RESISTOR CH 1/16W 39K	1	
R0708	ERJ3GEYJ332	M. RESISTOR CH 1/16W 3.3K	1	
R0709	ERJ6GEYJ104	M. RESISTOR CH 1/10W 100K	1	
R0710	ERJ3GEYG244	M. RESISTOR CH 1/16W 240K	1	
R0711	ERJ3GEYJ361	M. RESISTOR CH 1/16W 360	1	
R0712	ERJ3GEYJ222	M. RESISTOR CH 1/16W 2.2K	1	
R0713	ERJ3GEYJ472	M. RESISTOR CH 1/16W 4.7K	1	
R0714	ERJ3GEYJ562	M. RESISTOR CH 1/16W 5.6K	1	
R0715	ERJ3GEYJ223	M. RESISTOR CH 1/16W 22K	1	
R0717	ERJ3GEYJ271	M. RESISTOR CH 1/16W 270	1	
R0719	ERJ3GEYJ472	M. RESISTOR CH 1/16W 4.7K	1	
R0722	ERJ3GEYG184	M. RESISTOR CH 1/16W 180K	1	
R0723	ERJ3GEYG562	M. RESISTOR CH 1/16W 5.6K	1	
R0724	ERJ3GEYG222	M. RESISTOR CH 1/16W 2.2K	1	
R0725	ERJ6GEYJ101	M. RESISTOR CH 1/10W 100	1	
R0726	ERJ3GEYJ154	M. RESISTOR CH 1/16W 150K	1	
R0727	ERJ3GEYJ181	M. RESISTOR CH 1/16W 180	1	
R0731	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
R0732	ERJ3GEYJ472	M. RESISTOR CH 1/16W 4.7K	1	
R0733	ERJ3GEYJ221	M. RESISTOR CH 1/16W 220	1	
R0734	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R0737	ERJ3GEYJ821	M. RESISTOR CH 1/16W 820	1	
R1001	ERDS2TJ561	C. RESISTOR 1/4W 560	1	
R1002	ERDS2TJ103	C. RESISTOR 1/4W 10K	1	
R1004	ERJ6GMYJ182	M. RESISTOR CH 1/10W 1.8K	1	
R1010	ERJ6GMYG683	M. RESISTOR CH 1/10W 68K	1	
R1011	ERJ6GMYG752	M. RESISTOR CH 1/10W 7.5K	1	
R1012	ERJ6GMYG433	M. RESISTOR CH 1/10W 43K	1	
R1013, 14	ERJ6GMYJ562	M. RESISTOR CH 1/10W 5.6K	2	
R1018, 19	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	2	
R1022	ERDS2TJ561	C. RESISTOR 1/4W 560	1	
R2001	ERJ6GMYJ392	M. RESISTOR CH 1/10W 3.9K	1	
R2002	ERJ6GMYJ222	M. RESISTOR CH 1/10W 2.2K	1	
R2003	ERJ6GMYJ273	M. RESISTOR CH 1/10W 27K	1	
R2004	ERJ6GMYG393	M. RESISTOR CH 1/10W 39K	1	
R2501	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	1	
R2502, 03	ERDS2TJ330	C. RESISTOR 1/4W 33	2	
R2504	ERDS2TJ1R2	C. RESISTOR 1/4W 1.2	1	
R2505	ERDS2TJ331	C. RESISTOR 1/4W 330	1	
R2506	ERDS2TJ1R5	C. RESISTOR 1/4W 1.5	1	
R2507	ERDS2TJ330	C. RESISTOR 1/4W 33	1	
R3001	ERDS2TJ471	C. RESISTOR 1/4W 470	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R3003	ERJ6GMYJ223	M. RESISTOR CH 1/10W 22K	1	
R3004	ERJ6GMYJ471	M. RESISTOR CH 1/10W 470	1	
R3005	ERJ6GMYJ331	M. RESISTOR CH 1/10W 330	1	
R3007	ERJ6GMYJ750	M. RESISTOR CH 1/10W 75	1	
R3008	ERJ6GMYJ222	M. RESISTOR CH 1/10W 2.2K	1	
R3009	ERJ6GMYJ750	M. RESISTOR CH 1/10W 75	1	
R3011	ERJ6GMYJ102	M. RESISTOR CH 1/10W 1K	1	
R3012	ERJ6GMYJ221	M. RESISTOR CH 1/10W 220	1	
R3013	ERJ6GMYJ152	M. RESISTOR CH 1/10W 1.5K	1	
R3017	ERJ6GMYJ333	M. RESISTOR CH 1/10W 33K	1	
R3018	ERJ6GMYG301	M. RESISTOR CH 1/10W 300	1	
R3019	ERJ6GMYJ472	M. RESISTOR CH 1/10W 4.7K	1	
R3020	ERJ6GMYJ393	M. RESISTOR CH 1/10W 39K	1	
R3021	ERJ6GMYJ183	M. RESISTOR CH 1/10W 18K	1	
R3022	ERJ6GMYJ182	M. RESISTOR CH 1/10W 1.8K	1	
R3023	ERJ6GMYJ272	M. RESISTOR CH 1/10W 2.7K	1	
R3024	ERJ6GMYJ152	M. RESISTOR CH 1/10W 1.5K	1	
R3025	ERJ6GMYJ473	M. RESISTOR CH 1/10W 47K	1	
R3026	ERJ6GMYJ684	M. RESISTOR CH 1/10W 680K	1	
R3027	ERJ6GMYJ224	M. RESISTOR CH 1/10W 220K	1	
R3028	ERJ6GMYJ152	M. RESISTOR CH 1/10W 1.5K	1	
R3029	ERJ6GMYJ331	M. RESISTOR CH 1/10W 330	1	
R3030, 31	ERJ6GMYJ102	M. RESISTOR CH 1/10W 1K	2	
R3032	ERJ6GMYJ271	M. RESISTOR CH 1/10W 270	1	
R3033, 34	ERJ6GMZ0R00	M. RESISTOR CH 1/10W 0	2	
R3035	ERJ6GMYJ271	M. RESISTOR CH 1/10W 270	1	
R3037	ERJ6GMYJ822	M. RESISTOR CH 1/10W 8.2K	1	
R3038	ERJ6GMYJ104	M. RESISTOR CH 1/10W 100K	1	
R3039	ERJ6GMYJ221	M. RESISTOR CH 1/10W 220	1	
R3040	ERJ6GMYJ102	M. RESISTOR CH 1/10W 1K	1	
R3043	ERJ6GMYJ821	M. RESISTOR CH 1/10W 820	1	
R3046	ERJ6GMYJ223	M. RESISTOR CH 1/10W 22K	1	
R3047	ERJ6GMYJ102	M. RESISTOR CH 1/10W 1K	1	
R3048	ERJ6GMYJ271	M. RESISTOR CH 1/10W 270	1	
R3049	ERJ6GMYJ124	M. RESISTOR CH 1/10W 120K	1	
R3050	ERJ6GMYJ563	M. RESISTOR CH 1/10W 56K	1	
R3051	ERJ6GMYG123	M. RESISTOR CH 1/10W 12K	1	
R3052	ERJ6GMYG223	M. RESISTOR CH 1/10W 22K	1	
R3053	ERJ6GMYJ472	M. RESISTOR CH 1/10W 4.7K	1	
R3054	ERJ6GMYJ223	M. RESISTOR CH 1/10W 22K	1	
R3055	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	1	
R4001	ERJ6GMYJ334	M. RESISTOR CH 1/10W 330K	1	
R4002	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	1	
R4003	ERJ6GMYJ241	M. RESISTOR CH 1/10W 240	1	
R4004	ERJ6GMYJ273	M. RESISTOR CH 1/10W 27K	1	
R4005	ERJ6GMYJ473	M. RESISTOR CH 1/10W 47K	1	
R4006	ERJ6GMYJ163	M. RESISTOR CH 1/10W 16K	1	
R4007	ERJ6GMYJ102	M. RESISTOR CH 1/10W 1K	1	
R4008	ERJ6GMYJ391	M. RESISTOR CH 1/10W 390	1	
R4009	ERJ6GMYJ331	M. RESISTOR CH 1/10W 330	1	
R4010	ERJ6GMZ0R00	M. RESISTOR CH 1/10W 0	1	
R4011	ERJ6GMYK225	M. RESISTOR CH 1/10W 2.2M	1	
R4012	ERJ6GMYJ393	M. RESISTOR CH 1/10W 39K	1	
R4013	ERJ6GMYJ183	M. RESISTOR CH 1/10W 18K	1	
R4014	ERJ6GMYJ472	M. RESISTOR CH 1/10W 4.7K	1	
R4015	ERJ6GMYJ222	M. RESISTOR CH 1/10W 2.2K	1	
R4016	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	1	
R4017	ERJ6GMZ0R00	M. RESISTOR CH 1/10W 0	1	
R4019, 20	ERJ6GMZ0R00	M. RESISTOR CH 1/10W 0	2	
R4023	ERJ6GMYJ332	M. RESISTOR CH 1/10W 3.3K	1	
R4024	ERJ6GMYJ472	M. RESISTOR CH 1/10W 4.7K	1	
R4025	ERJ6GMYJ222	M. RESISTOR CH 1/10W 2.2K	1	
R4027, 28	ERJ6GMYJ472	M. RESISTOR CH 1/10W 4.7K	2	
R4029	ERJ6GMYJ682	M. RESISTOR CH 1/10W 6.8K	1	
R4030	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	1	
R4031	ERJ6GMYJ223	M. RESISTOR CH 1/10W 22K	1	
R4032, 33	ERJ6GMYJ822	M. RESISTOR CH 1/10W 8.2K	2	
R4035	ERJ6GMYJ183	M. RESISTOR CH 1/10W 18K	1	
R4037	ERJ6GMYJ471	M. RESISTOR CH 1/10W 470	1	
R4058	ERJ6GMYJ682	M. RESISTOR CH 1/10W 6.8K	1	
R4063	ERJ6GMYJ223	M. RESISTOR CH 1/10W 22K	1	
R4501, 02	ERJ6GMYJ513	M. RESISTOR CH 1/10W 51K	2	
R4503, 04	ERJ6GMYJ101	M. RESISTOR CH 1/10W 100	2	
R4505	ERJ6GMYJ332	M. RESISTOR CH 1/10W 3.3K	1	
R4506, 07	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	2	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R4508	ERDS2TJ471	C. RESISTOR 1/4W 470	1	
R4510	ERDS2TJ471	C. RESISTOR 1/4W 470	1	
R4513-16	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	4	
R4517	ERJ6GMYJ393	M. RESISTOR CH 1/10W 39K	1	
R4518	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	1	
R4519	ERJ6GMYJ393	M. RESISTOR CH 1/10W 39K	1	
R4520	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	1	
R4521	ERJ6GMYJ222	M. RESISTOR CH 1/10W 2.2K	1	
R4522	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	1	
R4523	ERJ6GMYJ393	M. RESISTOR CH 1/10W 39K	1	
R4524	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	1	
R4527, 28	ERJ6RBD273	M. RESISTOR CH 1/10W 27K	2	
R4529	ERJ6GMYJ393	M. RESISTOR CH 1/10W 39K	1	
R4530	ERJ6GMYK225	M. RESISTOR CH 1/10W 2.2M	1	
R6001	ERJ6GMZ0R00	M. RESISTOR CH 1/10W 0	1	
R6002	ERJ6GMYJ393	M. RESISTOR CH 1/10W 39K	1	
R6003	ERJ6GMYJ273	M. RESISTOR CH 1/10W 27K	1	
R6004	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	1	
R6005	ERJ6GMYJ221	M. RESISTOR CH 1/10W 220	1	
R6006, 07	ERJ6GMYJ273	M. RESISTOR CH 1/10W 27K	2	
R6008	ERDS2TJ181	C. RESISTOR 1/4W 180	1	
R6009	ERJ6GMYJ332	M. RESISTOR CH 1/10W 3.3K	1	
R6010	ERJ6GMYJ223	M. RESISTOR CH 1/10W 22K	1	
R6011	ERJ6GMYJ243	M. RESISTOR CH 1/10W 24K	1	
R6012	ERJ6GMYJ183	M. RESISTOR CH 1/10W 18K	1	
R6013	ERJ6GMYJ473	M. RESISTOR CH 1/10W 47K	1	
R6014	ERJ6GMYJ332	M. RESISTOR CH 1/10W 3.3K	1	
R6015	ERJ6GMYJ472	M. RESISTOR CH 1/10W 4.7K	1	
R6017, 18	ERJ6GMYJ332	M. RESISTOR CH 1/10W 3.3K	2	
R6020	ERJ6GMZ0R00	M. RESISTOR CH 1/10W 0	1	
R6021	ERJ6GMYJ102	M. RESISTOR CH 1/10W 1K	1	
R6023, 24	ERJ6GMYJ221	M. RESISTOR CH 1/10W 220	2	
R6027	ERJ6GMYJ221	M. RESISTOR CH 1/10W 220	1	
R6028	ERJ6GMYJ222	M. RESISTOR CH 1/10W 2.2K	1	
R6029	ERJ6GMYJ332	M. RESISTOR CH 1/10W 3.3K	1	
R6030	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	1	
R6031	ERJ6GMYJ105	M. RESISTOR CH 1/10W 1M	1	
R6033	ERJ6GMYJ101	M. RESISTOR CH 1/10W 100	1	
R6035	ERJ6GMYJ221	M. RESISTOR CH 1/10W 220	1	
R6036, 37	ERJ6GMYJ223	M. RESISTOR CH 1/10W 22K	2	
R6039	ERJ6GMZ0R00	M. RESISTOR CH 1/10W 0	1	
R6041	ERJ6GMYJ103	M. RESISTOR CH 1/10W 10K	1	
R6043	ERJ6GMYJ244	M. RESISTOR CH 1/10W 240K	1	
R6044	ERDS2TJ121	C. RESISTOR 1/4W 120	1	
R6045	ERJ6GMYJ223	M. RESISTOR CH 1/10W 22K	1	
R6052, 53	ERJ6GMZ0R00	M. RESISTOR CH 1/10W 0	2	
R6055	ERJ6GMYJ334	M. RESISTOR CH 1/10W 330K	1	
R7302	ERJ3GEY0R00	M. RESISTOR CH 1/16W 0	1	
R7305, 06	ERJ6GEYJ101	M. RESISTOR CH 1/10W 100	2	
R7316	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R7318	ERJ3GEYJ221	M. RESISTOR CH 1/16W 220	1	
R7324	ERJ3GEYJ393	M. RESISTOR CH 1/16W 39K	1	
R7325	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R7326	ERJ3GEYJ393	M. RESISTOR CH 1/16W 39K	1	
R7327	ERJ3GEYJ822	M. RESISTOR CH 1/16W 8.2K	1	
R7328, 29	ERJ3GEYJ221	M. RESISTOR CH 1/16W 220	2	
R7501, 02	ERJ6GMYG114	M. RESISTOR CH 1/10W 110K	2	
R7504	ERJ6GMYJ221	M. RESISTOR CH 1/10W 220	1	
R7505	ERJ6GMYG363	M. RESISTOR CH 1/10W 36K	1	
R7509	ERJ6GMYG182	M. RESISTOR CH 1/10W 1.8K	1	
R7510	ERDS2TJ180	C. RESISTOR 1/4W 18	1	
R7512, 13	ERJ6GMYG123	M. RESISTOR CH 1/10W 12K	2	
R7514	ERJ6GMYJ101	M. RESISTOR CH 1/10W 100	1	
R7516	ERDS2TJ102	C. RESISTOR 1/4W 1K	1	
R7518	ERDS2TJ150	C. RESISTOR 1/4W 15	1	
R7529	ERJ6GMYJ221	M. RESISTOR CH 1/10W 220	1	
R7604	ERJ6GMYJ102	M. RESISTOR CH 1/10W 1K	1	
R7605, 06	ERG2SJ331	M. RESISTOR 2W 330	2	
R7608	ERJ6GMYJ102	M. RESISTOR CH 1/10W 1K	1	
R7611-14	ERJ6GMYJ101	M. RESISTOR CH 1/10W 100	4	
R7701	ERJ6GMYJ272	M. RESISTOR CH 1/10W 2.7K	1	
R7702, 03	ERJ6GMYJ152	M. RESISTOR CH 1/10W 1.5K	2	
R7704	ERJ6GMYJ102	M. RESISTOR CH 1/10W 1K	1	
R7705, 06	ERJ6GMYJ101	M. RESISTOR CH 1/10W 100	2	
R7707	ERJ6GMYJ224	M. RESISTOR CH 1/10W 220K	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R7708	ERJ6GMYJ222	M. RESISTOR CH 1/10W 2.2K	1	
R7709	ERJ6GMYJ224	M. RESISTOR CH 1/10W 220K	1	
S6001	VES0834	S-TAB SWITCH	1	
S6002	VSS0520	MODE SELECT SWITCH	1	
S7501-04	EVQ11L07B	SWITCH	4	
T0701	EQV5EC081P	TRANSFORMER	1	
T4001	EQQ7QF025Q	TRANSFORMER	1	
T4002	EQQ7QF026Q	TRANSFORMER	1	
⚠ TU7601	ENG47304G1	TUNER	1	
VR0701	EVNCBAA00B14	V. RESISTOR	1	
X0702	VLF1414	COIL	1	
X0704	VLF1489	COIL	1	
X3001	VSX0162	CRYSTAL OSCILLATOR	1	
X3002	VSX0160	CRYSTAL OSCILLATOR	1	
X6001	VSX0660	CRYSTAL OSCILLATOR	1	
X6002	VSX0365	CRYSTAL OSCILLATOR	1	
X7302	VSX0953	CRYSTAL OSCILLATOR	1	
		MISCELLANEOUS		
	VXQ0648	FIP HOLDER	1	
	VSC4753	SHIELD CASE (BOTTOM)	1	FOR NICAM DECODER C.B.A.
	VSC4752	SHIELD CASE (MAIN)	1	FOR NICAM DECODER C.B.A.
	VMP4471	TV DEMODULATOR ANGLE	1	FOR TV DEMODULATOR C.B.A.
■	VEP05380A	HEAD AMP C.B.A.		(RTL)
C501-04	ECUM1E104KBN	C. CAPACITOR CH 25V 0.1U	4	
C505	ECUM1H103KBN	C. CAPACITOR CH 50V 0.01U	1	
C507	ECUM1H103KBN	C. CAPACITOR CH 50V 0.01U	1	
C509	ECUM1H681KBN	C. CAPACITOR CH 50V 680P	1	
C510, 11	ECUM1H103KBN	C. CAPACITOR CH 50V 0.01U	2	
C512	ECUM1E104KBN	C. CAPACITOR CH 25V 0.1U	1	
C513	VCEA0JCB221	E. CAPACITOR 6.3V 220U	1	
C514	VCEA1HCB3R3	E. CAPACITOR 50V 3.3U	1	
C515, 16	ECUM1H103KBN	C. CAPACITOR CH 50V 0.01U	2	
C518	ECUM1E104KBN	C. CAPACITOR CH 25V 0.1U	1	
C519	VCEA0JCB101	E. CAPACITOR 6.3V 100U	1	
IC501	AN3369SB	IC	1	
K501	ERJ6GEY0R00	M. RESISTOR CH 1/10W 0	1	
L501, 02	VLQ0599J680	COIL 68UH	2	
LB501	ERJ6GMZ0R00	M. RESISTOR CH 1/10W 0	1	
LB502	ERJ6GEY0R00	M. RESISTOR CH 1/10W 0	1	
LB503, 04	ERJ6GMZ0R00	M. RESISTOR CH 1/10W 0	2	
P501	VJS3537B016G	CONNECTOR (FEMALE) 16P	1	
P502	VJS3958	CONNECTOR (FEMALE) 11P	1	
R502	ERJ6GEYJ101	M. RESISTOR CH 1/10W 100	1	
R503	ERJ6RED150	M. RESISTOR CH 1/10W 15	1	
R504	ERJ6GEY0R00	M. RESISTOR CH 1/10W 0	1	
		MISCELLANEOUS		
	VSC4563	SHIELD CASE (TOP)	1	
⚠ ■	VEP01B48A	POWER C.B.A.		(RTL)
				NV-HD630A/EA
⚠ C1120, 21	ECQU2A104MVA	P. CAPACITOR 250V 0.1U	2	
⚠ C1122, 23	ECKMWS471MBV	C. CAPACITOR 470P	2	
⚠ C1124	ECKMWS102MEV	C. CAPACITOR 1000P	1	
C1140	ECEC2GG680	E. CAPACITOR 400V 68U	1	
C1141	ECA1VGE470X	E. CAPACITOR 35V 47U	1	
C1150	ECCZ3A101KGE	C. CAPACITOR 1KV 100P	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C1151	ECKF1H102KB	C. CAPACITOR 50V 1000P	1	
C1152	ECKD2H103PU	C. CAPACITOR 500V 0. 01U	1	
C1153	VCEA0JJC331	E. CAPACITOR 6. 3V 330U	1	
C1155	ECKF1H102KB	C. CAPACITOR 50V 1000P	1	
C1200	ECQB1H822JF	P. CAPACITOR 50V 8200P	1	
C1201	ECQV1H104JM	P. CAPACITOR 50V 0. 1U	1	
C1230	ECKD2H101KB	C. CAPACITOR 500V 100P	1	
C1231	VCEA1HJC470	E. CAPACITOR 50V 47U	1	
C1232	ECKF1H103ZF	C. CAPACITOR 50V 0. 01U	1	
C1250	ECKD2H221KB	C. CAPACITOR 500V 220P	1	
C1251	VCEA1EJH821	E. CAPACITOR 25V 820U	1	
C1252	VCEA1EJC331	E. CAPASITOR 25V 330U	1	
C1263	ECKD2H221KB	C. CAPACITOR 500V 220P	1	
C1264	EEUFA1A182	E. CAPACITOR 10V 1800U	1	
C1265	VCEA1AJC331	E. CAPACITOR 10V 330U	1	
C1270	ECKD2H101KB	C. CAPACITOR 500V 100P	1	
C1271	ECEA1VGE101	E. CAPACITOR 35V 100U	1	
C1272	ECKF1H103ZF	C. CAPACITOR 50V 0. 01U	1	
C1280	ECKD2H101KB	C. CAPACITOR 500V 100P	1	
C1281	EEUFA1A391	E. CAPACITOR 10V 390U	1	
D1101	S1WBA80	DIODE	1	
D1150	11EQS04	DIODE	1	
D1151	AP01C	DIODE	1	
D1153	1SS254	DIODE	1	
D1180	MA7300B	DIODE	1	
D1200	MA185	DIODE	1	
D1201, 02	1SS254	DIODE	2	
⚠ D1230	ERA22-04	DIODE	1	
D1250	RL2ZP	DIODE	1	
D1264	21DQ06FC4	DIODE	1	
⚠ D1270	ERA22-04	DIODE	1	
D1280	11EQS06	DIODE	1	
⚠ F1180	XBA2C16TB0	FUSE	1	
IC1150	STRF6552	IC	1	
IC1200	TL431CLP	IC	1	
⚠ IP1280	VSF0015A10	FUSE	1	
⚠ L1120	ELF15N005A	LINE FILTER	1	
⚠ L1121	ELF15N003A	LINE FILTER	1	
L1230	ELESE101KA	COIL 100UH	1	
L1250	VLQ0655K220	COIL 22UH	1	
L1261	ELEKN220KA	INDUCTOR 22UH	1	
L1270	ELESE101KA	COIL 100UH	1	
LB1126	VLP0056	FERRITE BEAD	1	
LB1150	VLP0056	FERRITE BEAD	1	
⚠ P1101	VJS3306	AC INLET	1	
P1102	VJP3917A016G	CONNECTOR (MALE) 16P	1	
Q1150	2SD1996-R	TRANSISTOR	1	
Q1151	2SB1030A	TRANSISTOR	1	
⚠ Q1200	PC123FY2	PHOTO COUPLER	1	
R1101-06	ERDS2FJ123	C. RESISTOR 1/4W 12K	6	
R1107	ERDS2FJ564	C. RESISTOR 1/4W 560K	1	
R1108	ERDS2FJ474	C. RESISTOR 1/4W 470K	1	
R1120	ERC12AGM334	S. RESISTOR 1/2W 330K	1	
R1150, 51	ERG1SJ223	M. RESISTOR 1W 22K	2	
R1152	ERDS2FJ331	C. RESISTOR 1/4W 330	1	
R1153	ERX1SJR51	M. RESISTOR 1W 0. 51	1	
R1155	ERDS2FJ102	C. RESISTOR 1/4W 1K	1	
R1156, 57	ERDS2FJ105	C. RESISTOR 1/4W 1M	2	
R1158	ERDS2FJ152	C. RESISTOR 1/4W 1. 5K	1	
R1159	ERDS2FJ101	C. RESISTOR 1/4W 100	1	
R1160	ERDS2FJ104	C. RESISTOR 1/4W 100K	1	
R1161, 62	ERDS2FJ222	C. RESISTOR 1/4W 2. 2K	2	
R1200	ERDS1TJ470	C. RESISTOR 1/2W 47	1	
R1202	ERDS2FJ222	C. RESISTOR 1/4W 2. 2K	1	
R1203	ERDS2TJ102	C. RESISTOR 1/4W 1K	1	
R1204	ERDS2TJ103	C. RESISTOR 1/4W 10K	1	

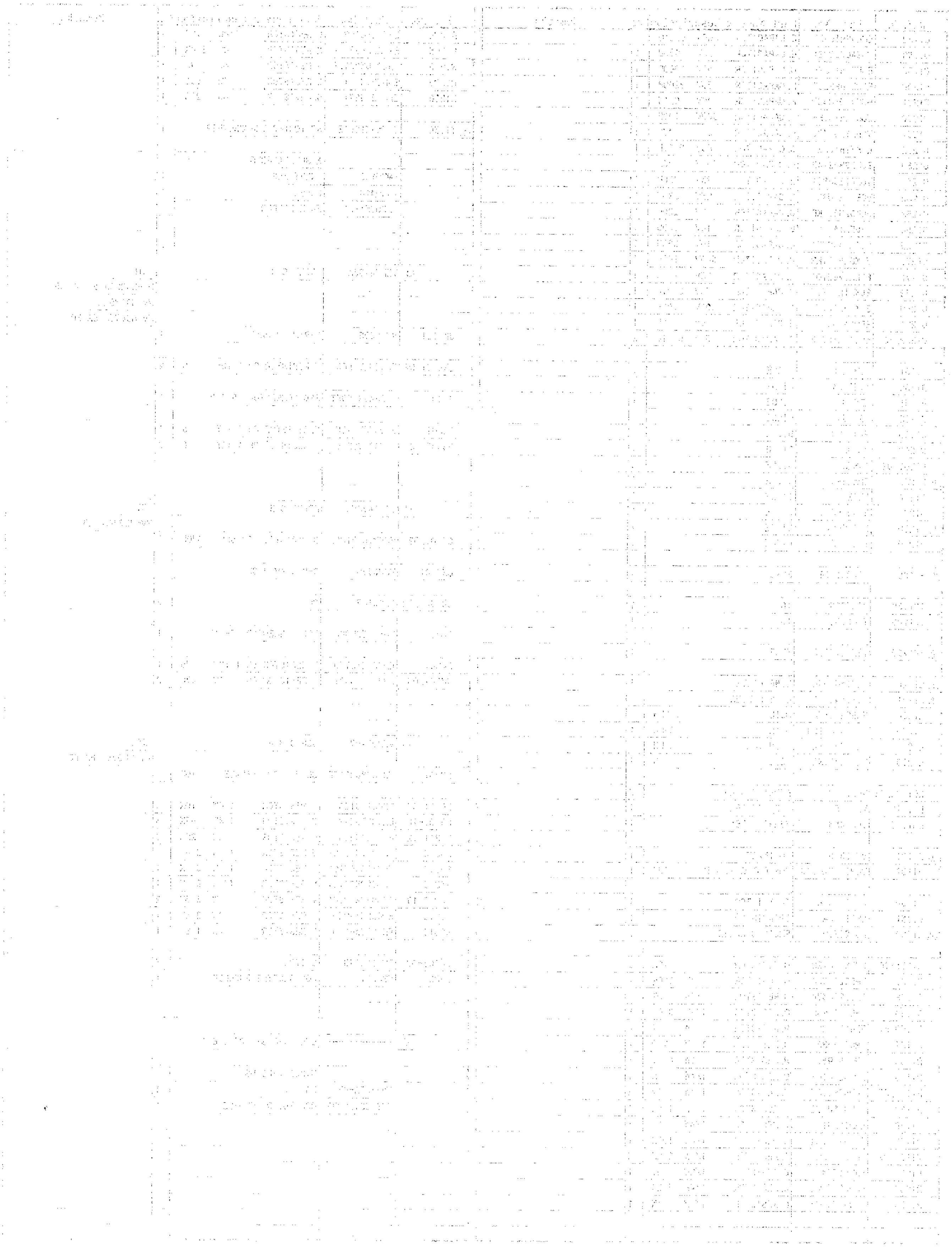
Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R1205	EROS2CKG2401	M. RESISTOR 1/4W 2. 4K	1	
R1206	EROS2CKG2701	M. RESISTOR 1/4W 2. 7K	1	
R1207	ERDS2TJ561	C. RESISTOR 1/4W 560	1	
R1208	ERDS2TJ271	C. RESISTOR 1/4W 270	1	
S7511-15	EVQ11L07B	SWITCH	5	
⚠ T1150	ETE28K120AZ	SWITCHING TRANSFORMER	1	
		MISCELLANEOUS		
	VMP5133	INLET ANGLE	1	
	VHD0418	SCREW	1	
	TP00351-51	FUSE HOLDER	2	
⚠ ■	VEP01848C	POWER C. B. A.		(RTL)
				NV-HD630AM/BD
				NV-HD635AM
				NV-HD640AM/EU
⚠ C1120, 21	ECQU2A104MVA	P. CAPACITOR 250V 0. 1U	2	
⚠ C1122, 23	ECKMWS331MBV	C. CAPACITOR 330P	2	
⚠ C1124	ECKMWS102MEV	C. CAPACITOR 1000P	1	
C1140	ECEC2GG820GP	E. CAPACITOR 400V 82U	1	
C1141	ECA1VGE470X	E. CAPACITOR 35V 47U	1	
C1150	ECCZ3A101KGE	C. CAPACITOR 1KV 100P	1	
C1151	ECKF1H102KB	C. CAPACITOR 50V 1000P	1	
C1152	ECKD2H103PU	C. CAPACITOR 500V 0. 01U	1	
C1153	VCEA0JJC331	E. CAPACITOR 6. 3V 330U	1	
C1155	ECKF1H102KB	C. CAPACITOR 50V 1000P	1	
C1200	ECQB1H822JF	P. CAPACITOR 50V 8200P	1	
C1201	ECQV1H104JM	P. CAPACITOR 50V 0. 1U	1	
C1230	ECKD2H101KB	C. CAPACITOR 500V 100P	1	
C1231	VCEA1HJC470	E. CAPACITOR 50V 47U	1	
C1232	ECKF1H103ZF	C. CAPACITOR 50V 0. 01U	1	
C1250	ECKD2H221KB	C. CAPACITOR 500V 220P	1	
C1251	VCEA1EJH821	E. CAPACITOR 25V 820U	1	
C1252	VCEA1EJC331	E. CAPASITOR 25V 330U	1	
C1263	ECKD2H221KB	C. CAPACITOR 500V 220P	1	
C1264	EEUFA1A182	E. CAPACITOR 10V 1800U	1	
C1265	VCEA1AJC331	E. CAPACITOR 10V 330U	1	
C1270	ECKD2H101KB	C. CAPACITOR 500V 100P	1	
C1271	ECEA1VGE101	E. CAPACITOR 35V 100U	1	
C1272	ECKF1H103ZF	C. CAPACITOR 50V 0. 01U	1	
C1280	ECKD2H101KB	C. CAPACITOR 500V 100P	1	
C1281	EEUFA1A391	E. CAPACITOR 10V 390U	1	
C1282, 83	ECQB1H103JF	P. CAPACITOR 50V 0. 01U	2	
D1101	S1WBA80	DIODE	1	
D1150	11EQS04	DIODE	1	
D1151	AP01C	DIODE	1	
D1153	1SS254	DIODE	1	
D1180	MA7300B	DIODE	1	
D1200	MA185	DIODE	1	
D1201, 02	1SS254	DIODE	2	
⚠ D1230	ERA22-04	DIODE	1	
D1250	RL2ZP	DIODE	1	
D1264	21DQ06FC4	DIODE	1	
⚠ D1270	ERA22-04	DIODE	1	
D1280	11EQS06	DIODE	1	
⚠ F1180	XBA2C16TB0	FUSE	1	
IC1150	STRF6552	IC	1	
IC1200	TL431CLP	IC	1	
⚠ IP1280	VSF0015A10	FUSE	1	
⚠ L1120	ELF15N005A	LINE FILTER	1	
⚠ L1121	ELF15N003A	LINE FILTER	1	
L1230	ELESE101KA	COIL 100UH	1	
L1250	VLQ0655K220	COIL 22UH	1	
L1261	ELEKN220KA	INDUCTOR 22UH	1	
L1270	ELESE101KA	COIL 100UH	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
LB1122, 23	VLP0056	FERRITE BEAD	2	
LB1126	VLP0056	FERRITE BEAD	1	
LB1150	VLP0056	FERRITE BEAD	1	
⚠ P1101	VJS3306	AC INLET	1	
P1102	VJP3917A016G	CONNECTOR (MALE) 16P	1	
Q1150	2SD1996-R	TRANSISTOR	1	
Q1151	2SB1030A	TRANSISTOR	1	
⚠ Q1200	PC123FY2	PHOTO COUPLER	1	
R1101-06	ERDS2FJ123	C. RESISTOR 1/4W 12K	6	
R1107	ERDS2FJ564	C. RESISTOR 1/4W 560K	1	
R1108	ERDS2FJ474	C. RESISTOR 1/4W 470K	1	
R1120	ERC12AGM334	S. RESISTOR 1/2W 330K	1	
R1150, 51	ERG1SJ223	M. RESISTOR 1W 22K	2	
R1152	ERDS2FJ331	C. RESISTOR 1/4W 330	1	
R1153	ERX1SJR51	M. RESISTOR 1W 0. 51	1	
R1155	ERDS2FJ102	C. RESISTOR 1/4W 1K	1	
R1156, 57	ERDS2FJ105	C. RESISTOR 1/4W 1M	2	
R1158	ERDS2FJ152	C. RESISTOR 1/4W 1. 5K	1	
R1159	ERDS2FJ101	C. RESISTOR 1/4W 100	1	
R1160	ERDS2FJ104	C. RESISTOR 1/4W 100K	1	
R1161, 62	ERDS2FJ222	C. RESISTOR 1/4W 2. 2K	2	
R1200	ERDS1TJ470	C. RESISTOR 1/2W 47	1	
R1202	ERDS2FJ222	C. RESISTOR 1/4W 2. 2K	1	
R1203	ERDS2TJ102	C. RESISTOR 1/4W 1K	1	
R1204	ERDS2TJ103	C. RESISTOR 1/4W 10K	1	
R1205	EROS2CKG2401	M. RESISTOR 1/4W 2. 4K	1	
R1206	EROS2CKG2701	M. RESISTOR 1/4W 2. 7K	1	
R1207	ERDS2TJ561	C. RESISTOR 1/4W 560	1	
R1208	ERDS2TJ271	C. RESISTOR 1/4W 270	1	
S7511-15	EVQ11L07B	SWITCH	5	
⚠ T1150	ETE28K120AZ	SWITCHING TRANSFORMER	1	
		MISCELLANEOUS		
	VMP5133	INLET ANGLE	1	
	VHD0418	SCREW	1	
	TP00351-51	FUSE HOLDER	2	
⚠ ■	VEP01848B	POWER C. B. A.		(RTL)
				NV-HD675A/EA
⚠ C1120, 21	ECQU2A104MVA	P. CAPACITOR 250V 0. 1U	2	
⚠ C1122, 23	ECKMWS471MBV	C. CAPACITOR 470P	2	
⚠ C1124	ECKMWS102MEV	C. CAPACITOR 1000P	1	
C1140	ECEC2GG680	E. CAPACITOR 400V 68U	1	
C1141	ECA1VGE470X	E. CAPACITOR 35V 47U	1	
C1150	ECCZ3A101KGE	C. CAPACITOR 1KV 100P	1	
C1151	ECKF1H102KB	C. CAPACITOR 50V 1000P	1	
C1152	ECKD2H103PU	C. CAPACITOR 500V 0. 01U	1	
C1153	VCEA0JJC331	E. CAPACITOR 6. 3V 330U	1	
C1155	ECKF1H102KB	C. CAPACITOR 50V 1000P	1	
C1200	ECQB1H822JF	P. CAPACITOR 50V 8200P	1	
C1201	ECQV1H104JM	P. CAPACITOR 50V 0. 1U	1	
C1230	ECKD2H101KB	C. CAPACITOR 500V 100P	1	
C1231	VCEA1HJC470	E. CAPACITOR 50V 47U	1	
C1232	ECKF1H103ZF	C. CAPACITOR 50V 0. 01U	1	
C1250	ECKD2H221KB	C. CAPACITOR 500V 220P	1	
C1251	VCEA1EJH821	E. CAPACITOR 25V 820U	1	
C1252	VCEA1EJC331	E. CAPASITOR 25V 330U	1	
C1263	ECKD2H221KB	C. CAPACITOR 500V 220P	1	
C1264	EEUFA1A182	E. CAPACITOR 10V 1800U	1	
C1265	VCEA1AJC331	E. CAPACITOR 10V 330U	1	
C1270	ECKD2H101KB	C. CAPACITOR 500V 100P	1	
C1271	ECEA1VGE101	E. CAPACITOR 35V 100U	1	
C1272	ECKF1H103ZF	C. CAPACITOR 50V 0. 01U	1	
C1280	ECKD2H101KB	C. CAPACITOR 500V 100P	1	
C1281	EEUFA1A391	E. CAPACITOR 10V 390U	1	
D1101	S1WBA80	DIODE	1	
D1150	11EQS04	DIODE	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
D1151	AP01C	DIODE	1	
D1153	1SS254	DIODE	1	
D1180	MA7300B	DIODE	1	
D1200	MA185	DIODE	1	
D1201, 02	1SS254	DIODE	2	
⚠ D1230	ERA22-04	DIODE	1	
D1250	RL2ZP	DIODE	1	
D1264	21DQ06FC4	DIODE	1	
⚠ D1270	ERA22-04	DIODE	1	
D1280	11EQS06	DIODE	1	
⚠ F1180	XBA2C16TB0	FUSE	1	
IC1150	STRF6552	IC	1	
IC1200	TL431CLP	IC	1	
⚠ IP1280	VSF0015A10	FUSE	1	
⚠ L1120	ELF15N005A	LINE FILTER	1	
⚠ L1121	ELF15N003A	LINE FILTER	1	
L1230	ELESE101KA	COIL 100UH	1	
L1250	VLQ0655K220	COIL 22UH	1	
L1261	ELEKN220KA	INDUCTOR 22UH	1	
L1270	ELESE101KA	COIL 100UH	1	
LB1126	VLP0056	FERRITE BEAD	1	
LB1150	VLP0056	FERRITE BEAD	1	
⚠ P1101	VJS3306	AC INLET	1	
P1102	VJP3917A016G	CONNECTOR (MALE) 16P	1	
Q1150	2SD1996-R	TRANSISTOR	1	
Q1151	2SB1030A	TRANSISTOR	1	
⚠ Q1200	PC123FY2	PHOTO COUPLER	1	
R1101-06	ERDS2FJ123	C. RESISTOR 1/4W 12K	6	
R1107	ERDS2FJ564	C. RESISTOR 1/4W 560K	1	
R1108	ERDS2FJ474	C. RESISTOR 1/4W 470K	1	
R1120	ERC12AGM334	S. RESISTOR 1/2W 330K	1	
R1150, 51	ERG1SJ223	M. RESISTOR 1W 22K	2	
R1152	ERDS2FJ331	C. RESISTOR 1/4W 330	1	
R1153	ERX1SJR51	M. RESISTOR 1W 0. 51	1	
R1155	ERDS2FJ102	C. RESISTOR 1/4W 1K	1	
R1156, 57	ERDS2FJ105	C. RESISTOR 1/4W 1M	2	
R1158	ERDS2FJ152	C. RESISTOR 1/4W 1. 5K	1	
R1159	ERDS2FJ101	C. RESISTOR 1/4W 100	1	
R1160	ERDS2FJ104	C. RESISTOR 1/4W 100K	1	
R1161, 62	ERDS2FJ222	C. RESISTOR 1/4W 2. 2K	2	
R1200	ERDS1TJ470	C. RESISTOR 1/2W 47	1	
R1202	ERDS2FJ222	C. RESISTOR 1/4W 2. 2K	1	
R1203	ERDS2TJ102	C. RESISTOR 1/4W 1K	1	
R1204	ERDS2TJ103	C. RESISTOR 1/4W 10K	1	
R1205	EROS2CKG2401	M. RESISTOR 1/4W 2. 4K	1	
R1206	EROS2CKG2701	M. RESISTOR 1/4W 2. 7K	1	
R1207	ERDS2TJ561	C. RESISTOR 1/4W 560	1	
R1208	ERDS2TJ271	C. RESISTOR 1/4W 270	1	
⚠ T1150	ETE28K120AZ	SWITCHING TRANSFORMER	1	
		MISCELLANEOUS		
	VMP5133	INLET ANGLE	1	
	VHD0418	SCREW	1	
	TP00351-51	FUSE HOLDER	2	
⚠ ■	VEP01848D	POWER C. B. A.		(RTL)
				NV-HD675BD
⚠ C1120, 21	ECQU2A104MVA	P. CAPACITOR 250V 0. 1U	2	
⚠ C1122, 23	ECKMWS331MBV	C. CAPACITOR 330P	2	
⚠ C1124	ECKMWS102MEV	C. CAPACITOR 1000P	1	
C1140	ECEC2GG820GP	E. CAPACITOR 400V 82U	1	
C1141	ECA1VGE470X	E. CAPACITOR 35V 47U	1	
C1150	ECCZ3A101KGE	C. CAPACITOR 1KV 100P	1	
C1151	ECKF1H102KB	C. CAPACITOR 50V 1000P	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C1152	ECKD2H103PU	C. CAPACITOR 500V 0. 01U	1	
C1153	VCEA0JJC331	E. CAPACITOR 6. 3V 330U	1	
C1155	ECKF1H102KB	C. CAPACITOR 50V 1000P	1	
C1200	ECQB1H822JF	P. CAPACITOR 50V 8200P	1	
C1201	ECQV1H104JM	P. CAPACITOR 50V 0. 1U	1	
C1230	ECKD2H101KB	C. CAPACITOR 500V 100P	1	
C1231	VCEA1HJC470	E. CAPACITOR 50V 47U	1	
C1232	ECKF1H103ZF	C. CAPACITOR 50V 0. 01U	1	
C1250	ECKD2H221KB	C. CAPACITOR 500V 220P	1	
C1251	VCEA1EJH821	E. CAPACITOR 25V 820U	1	
C1252	VCEA1EJC331	E. CAPASITOR 25V 330U	1	
C1263	ECKD2H221KB	C. CAPACITOR 500V 220P	1	
C1264	EEUFA1A182	E. CAPACITOR 10V 1800U	1	
C1265	VCEA1AJC331	E. CAPACITOR 10V 330U	1	
C1270	ECKD2H101KB	C. CAPACITOR 500V 100P	1	
C1271	ECEA1VGE101	E. CAPACITOR 35V 100U	1	
C1272	ECKF1H103ZF	C. CAPACITOR 50V 0. 01U	1	
C1280	ECKD2H101KB	C. CAPACITOR 500V 100P	1	
C1281	EEUFA1A391	E. CAPACITOR 10V 390U	1	
C1282. 83	ECQB1H103JF	P. CAPACITOR 50V 0. 01U	2	
D1101	S1WBA80	DIODE	1	
D1150	11EQS04	DIODE	1	
D1151	AP01C	DIODE	1	
D1153	1SS254	DIODE	1	
D1180	MA7300B	DIODE	1	
D1200	MA185	DIODE	1	
D1201. 02	1SS254	DIODE	2	
⚠ D1230	ERA22-04	DIODE	1	
D1250	RL2ZP	DIODE	1	
D1264	21DQ06FC4	DIODE	1	
⚠ D1270	ERA22-04	DIODE	1	
D1280	11EQS06	DIODE	1	
⚠ F1180	XBA2C16TB0	FUSE	1	
IC1150	STRF6552	IC	1	
IC1200	TL431CLP	IC	1	
⚠ IP1280	VSF0015A10	FUSE	1	
⚠ L1120	ELF15N005A	LINE FILTER	1	
⚠ L1121	ELF15N003A	LINE FILTER	1	
L1230	ELESE101KA	COIL 100UH	1	
L1250	VLQ0655K220	COIL 22UH	1	
L1261	ELEKN220KA	INDUCTOR 22UH	1	
L1270	ELESE101KA	COIL 100UH	1	
LB1122. 23	VLP0056	FERRITE BEAD	2	
LB1126	VLP0056	FERRITE BEAD	1	
LB1150	VLP0056	FERRITE BEAD	1	
⚠ P1101	VJS3306	AC INLET	1	
P1102	VJP3917A016G	CONNECTOR (MALE) 16P	1	
Q1150	2SD1996-R	TRANSISTOR	1	
Q1151	2SB1030A	TRANSISTOR	1	
⚠ Q1200	PC123FY2	PHOTO COUPLER	1	
R1101-06	ERDS2FJ123	C. RESISTOR 1/4W 12K	6	
R1107	ERDS2FJ564	C. RESISTOR 1/4W 560K	1	
R1108	ERDS2FJ474	C. RESISTOR 1/4W 470K	1	
R1120	ERC12AGM334	S. RESISTOR 1/2W 330K	1	
R1150, 51	ERG1SJ223	M. RESISTOR 1W 22K	2	
R1152	ERDS2FJ331	C. RESISTOR 1/4W 330	1	
R1153	ERX1SJR51	M. RESISTOR 1W 0. 51	1	
R1155	ERDS2FJ102	C. RESISTOR 1/4W 1K	1	
R1156, 57	ERDS2FJ105	C. RESISTOR 1/4W 1M	2	
R1158	ERDS2FJ152	C. RESISTOR 1/4W 1. 5K	1	
R1159	ERDS2FJ101	C. RESISTOR 1/4W 100	1	
R1160	ERDS2FJ104	C. RESISTOR 1/4W 100K	1	
R1161, 62	ERDS2FJ222	C. RESISTOR 1/4W 2. 2K	2	
R1200	ERDS1TJ470	C. RESISTOR 1/2W 47	1	
R1202	ERDS2FJ222	C. RESISTOR 1/4W 2. 2K	1	
R1203	ERDS2TJ102	C. RESISTOR 1/4W 1K	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R1204	ERDS2TJ103	C. RESISTOR 1/4W 10K	1	
R1205	EROS2CKG2401	M. RESISTOR 1/4W 2. 4K	1	
R1206	EROS2CKG2701	M. RESISTOR 1/4W 2. 7K	1	
R1207	ERDS2TJ561	C. RESISTOR 1/4W 560	1	
R1208	ERDS2TJ271	C. RESISTOR 1/4W 270	1	
⚠ T1150	ETE28K120AZ	SWITCHING TRANSFORMER	1	
		MISCELLANEOUS		
	VMP5133	INLET ANGLE	1	
	VHD0418	SCREW	1	
	TP00351-51	FUSE HOLDER	2	
■	VEP04735A	FRONT C. B. A.		(RTL)
				NV-HD630A/EA/AM/BD
				NV-HD635AM
				NV-HD675A/EA/BD
JK4801	VJJ0573	3-PIN AV JACK	1	
LB4801, 02	ERJ6GEY0R00	M. RESISTOR CH 1/10W 0	2	
P4801	VJS3478B005T	FFC CONNECTOR (5-PIN)	1	
R4801	ERJ6GEYJ750	M. RESISTOR CH 1/10W 75	1	
R4802, 03	ERJ6GEY0R00	M. RESISTOR CH 1/10W 0	2	
■	VEP04735B	FRONT C. B. A.		(RTL)
				NV-HD640AM/EU
C4801, 02	ECUM1H471JCN	C. CAPACITOR CH 50V 470P	2	
JK4801	VJJ0573	3-PIN AV JACK	1	
LB4801, 02	VLP0147	COIL	2	
P4801	VJS3478B005T	FFC CONNECTOR (5-PIN)	1	
R4801	ERJ6GEYJ750	M. RESISTOR CH 1/10W 75	1	
R4802, 03	ERJ6GEYJ471	M. RESISTOR CH 1/10W 470	2	
■	VEP07A07A	JOG C. B. A.		(RTL)
				NV-HD675A/EA/BD
P6301	VJS3630B010B	CONNECTOR (FEMALE) 10P	1	
R6301-04	ERDS2TJ103	C. RESISTOR 1/4W 10K	4	
R6305-10	ERDS2TJ473	C. RESISTOR 1/4W 47K	6	
R6311, 12	ERDS2TJ223	C. RESISTOR 1/4W 22K	2	
R6313	EROS2CKG2401	M. RESISTOR 1/4W 2. 4K	1	
R6314	EROS2CKG5101	M. RESISTOR 1/4W 5. 1K	1	
R6315	EROS2CKG9101	M. RESISTOR 1/4W 9. 1K	1	
R6316, 17	EROS2CKG3601	M. RESISTOR 1/4W 3. 6K	2	
R6318	EROS2CKG2401	M. RESISTOR 1/4W 2. 4K	1	
R6319	EROS2CKG1801	M. RESISTOR 1/4W 1. 8K	1	
S6301-08	EVQ11L07B	SWITCH	B	
S6309	VSQ0817	JOG/SHUTTLE ENCODER	1	
■	------------	CYLINDER STATOR C. B. A.		
		MISCELLANEOUS		
	HW-300A-DF	HALL IC	1	
	VJS3537B009G	CONNECTOR (FEMALE) 9P	1	



INTERNAL REFERENCE CODE

NOTE:This chart is only for internal reference.
Do not order any parts according to these codes.

PCB	FILM CODE
MAIN SYUGO	HOAO00-0597A
POWER	HOAO00-01848
FRONT	HOAO00-04735
DECODER(A)	HOAO00-07997
NICAM DECODER(EA/BD/HD640AM)	HOAO00-07973
JOG SHUTTLE	HOAO00-07A07
TV DEMODU(BD)	HOAO00-07999
CYLINDER DRIVE	HOAO00-000F8

Panasonic

MATSUSHITA ELECTRIC

Printed in Japan

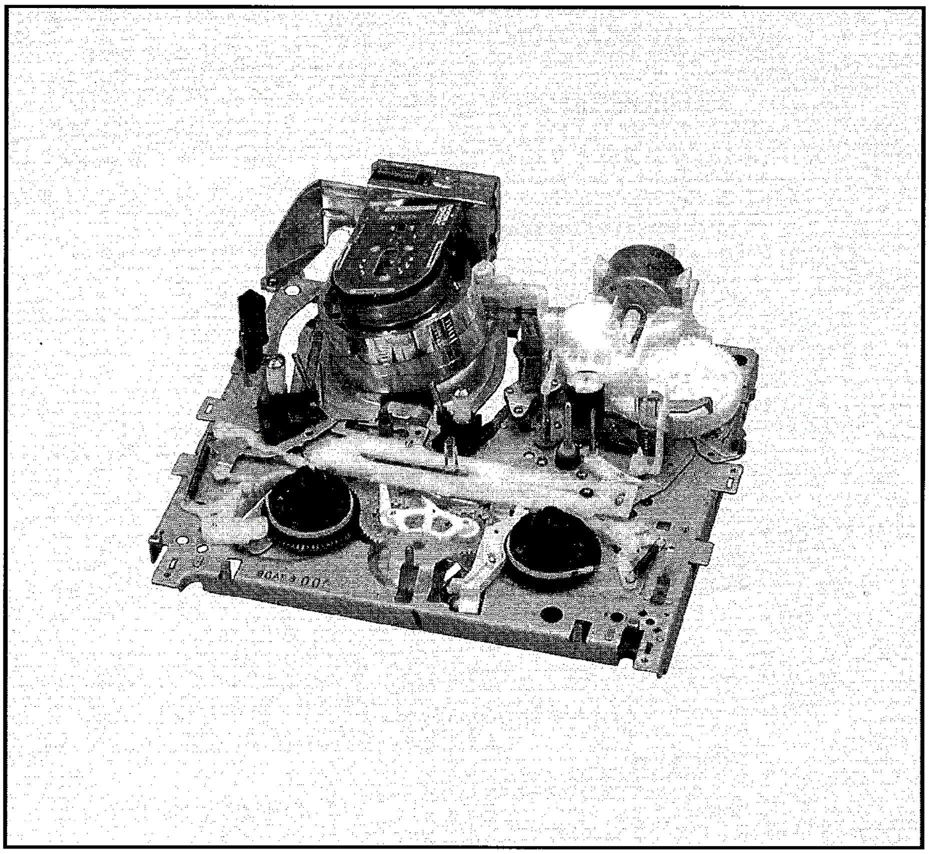
ORDER NO. VRD9612M129

Service Manual

Video Cassette Recorder

Panasonic VHS

Z-MECHANISM CHASSIS



INTRODUCTION

The Z-Mechanism chassis are built in several Panasonic VHS Video Cassette Recorders from NV-SD series in 1996.

⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.
Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

Panasonic

© 1996 Matsushita Electric Industrial Co., Ltd.
All rights reserved. Unauthorized copying and distribution is a violation of law.

CONTENTS

1. OUTLINE OF Z MECHANISM 1
   1-1. The tape transport path 1
   1-2. Cassette holder unit 2
   1-3. Reel brake 2
   1-4. Number of Gear Phase Alignment Point and Replacement Parts 3
   Z Mechanism Components 4
   FLOW CHART OF LOADING MECHANISM 5
2. REMOVAL OF CASSETTE TAPE 6
   2-1. Removal of compulsory loading 6
   2-2. Removal of manual operation of Main cam gear 6
3. REMOVAL OF CASSETTE HOLDER UNIT & MECHANISM CHASSIS 7
   3-1. Removal of Cassette holder unit 7
   3-2. Removal of Mechanism chassis 8
4. DISASSEMBLY/ASSEMBLY METHOD FOR MECHANISM 9
   4-1. Disassembly of mechanism 9
   4-2. Assembly and phase adjustment of mechanism 14
   4-3. Assembly of mechanism chassis 20
   Parts Access Flow Chart 23
5. MECHANICAL ADJUSTMENT PROCEDURES 24
   5-1. Tension post position adjustment 24
   5-2. Back tension adjustment 24
   5-3. P2 and P3 posts adjustment 25
   5-4. Tape interchangeability adjustment 25
      5-4-(1). P2 AND P3 POSTS ADJUSTMENT 26
      5-4-(2). ADJUSTMENT OF P4 POST 27
      5-4-(3). HEIGHT ADJUSTMENT OF A/C HEAD 28
      5-4-(4). FINE-ADJUSTMENT OF A/C HEAD 28
      5-4-(5). ADJUSTMENT OF X-VALUE 28
      5-4-(6). FINE-ADJUSTMENT OF X-VALUE 29
   Servicing Fixtures & Tools 30
6. SELF-TEST INDICATION DISPLAY 31
7. SERVICE INFORMATION DISPLAY 33
   7-1. Purpose of Service Information Display 33
   7-2. Turning on Service Information Display 33
   7-3. Use of Service Modes 34
   7-4. Service Information Number 36
   7-5. Test Mode 36
   7-6. Timing chart from Mode SW to System control IC 38
8. SYSTEM CONTROL CIRCUIT & MECHANISM CONTROL CIRCUIT 39
   8-1. STOP 3 Specification 39
   8-2. Stand-by in the STOP3 position 39
   8-3. Supply and Take-up Sensors 40
   8-4. Safety Tab Switch 40
   8-5. Dew Sensor 41
   8-6. Setting time for each mode 42
   8-7. Operation of short CUE 42
   8-8. Loading/Unloading Mechanism lock 42
   8-9. Cassette loading/unloading lock 42
   8-10. Reel lock operation 43
   8-11. Cylinder lock 43
   8-12. Mode transition 44
   8-13. Power on reset 44
   8-14. Linear time counter operation 44
   8-15. Tape speed in CUE/REV mode 44
   8-16. Automatic functions 45
   8-17. CUE/REV lock mode 45
   8-18. FR (Forward/Reverse) search mode 45
   8-19. FF/REW speed 45
   8-20. FF/REW time 45

1. OUTLINE OF Z MECHANISM

1-1. The tape transport path

(1) Mechanism Chassis

Aluminium Chassis has been changed to sheet metal (Thickness: 1.2 mm).

(2) Capstan position (Cassette-in method/Capstan-in method)

The Tape does not touch the Cassette tape so that the rationalization has been promoted such as Reel gear pinch up/down mechanism has been deleted.

(3) Deletion of P1 post

FE Head has been installed Limiter so that P1 post has been deleted.

(4) A/C Head base combined with P4 post

A/C Head has been combined with P4 post on the same base.

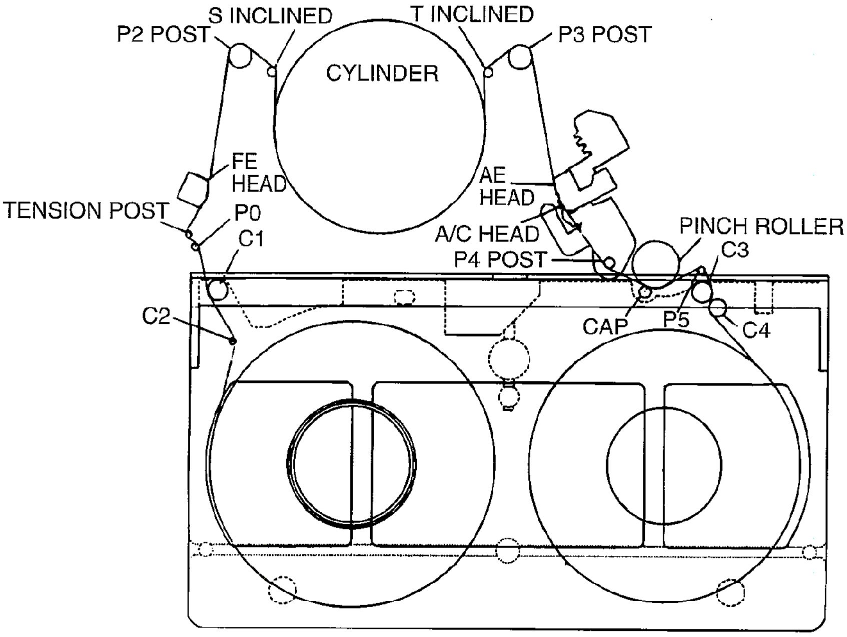
(5) Change of A/C head base type

The change of the angle winding the tape on A/C head has been reduced by the construction of A/C head base has been changed from the revolution type to slide base type.

(6) Improvement of P5 post

P5 post operation has been changed by non-adjustable of the Height and the Tilt adjustment so that the specification has been improved.

Z Mechanism tape transport path in REV mode


S INCLINED
T INCLINED
P2 POST
P3 POST
CYLINDER
FE HEAD
AE HEAD
TENSION POST
P0
C1
A/C HEAD
P4 POST
PINCH ROLLER
C3
C2
CAP
P5
C4

1-2. Cassette holder unit

(1) Cassette-in operation

The Rack drive arm drives Main Cam gear by inserting the cassette tape. Consequently, Position switch detects the cassette-in mode so that Loading motor drives. The mode goes to the Stop mode from the Cassette-in through the Loading mode.

① The parts quantity reduction of Cassette holder unit.
(Z Mechanism: 21 pieces, K Mechanism: 36 pieces)

a. Release lever has been installed in Right Side Plate.
b. Cassette guide has been installed in Front Panel unit.
c. Safety lever spring is made by the resin.
d. Opener lever has been changed into the single opener type.
e. One side of Side Plate unit is hung on Chassis in order to fix it.

② Improvement of the cassette insertion
(The force of the cassette insertion Z Mechanism: Approximately 400gm.,
K Mechanism: Approximately 600gm.)

The tooth pitch of Worm gear which has been extended against the previous model, is located on the Motor so that Worm gear can be reversed. Consequently, the Motor rotates before the insertion spring (the combined spring) is working when the cassette tape is inserted, so that the repelled force of the insertion spring has been reduced as differing from the present model.

③ Small-sized Cassette holder unit (Thinned unit)

a. The Wiper arm method which has been adopted, assigned Wiper arm between Cassette Holder Plate and Side Plate so that the small-sized of the width has been realized.
b. To prevent the increment of parts quantity such as Safety lever is used for Pre-open mechanism shown in the present model, and the small-sized unit has been realized by inclining one portion of the L groove in Side Plate.
c. The part of driving change-over is located in the nearest to the center of Reel so that the depth size is compacter.

1-3. Reel brake

(1) Supply Reel Brake is used for Tension Regulator which is composed of the conventional Main brake and the soft brake function.

(2) Take-up Reel Brake is used as Band Brake unit in order to correspond with Supply Reel Brake.

※ Tension Regulator performance:

This is composed of Tension regulator and brake. The tape always is given the tension against the advance direction by Tension band.

(3) Construction of Supply reel tension regulator

Comparison of the construction with the conventional model

	Z Mechanism	K Mechanism
Tension Arm Shaft Bearing construction	Resin	Tension arm
Tension Band	Felt less Lumiller	Felt Lumiller
Braking method	Tension regulator	Main & soft brake

Operating mode and necessary function

Mechanism mode	Necessary function	Operation
Cassette down	Prevention of the tape slag (Soft brake)	Soft brake
Completion of Loading	Prevention of the tape slag (Soft brake)	Tension regulator
REV	Prevention of in Play mode to REV mode (Soft brake)	Tension regulator
PLAY, FF	Back tension adjustment	Same as the conventional
STOP	Main brake function	Tension regulator

(4) Construction of Take-up brake

Take-up brake is used Band brake as well as Supply brake depend on corresponding with Band brake is adopted at the Supply Side.

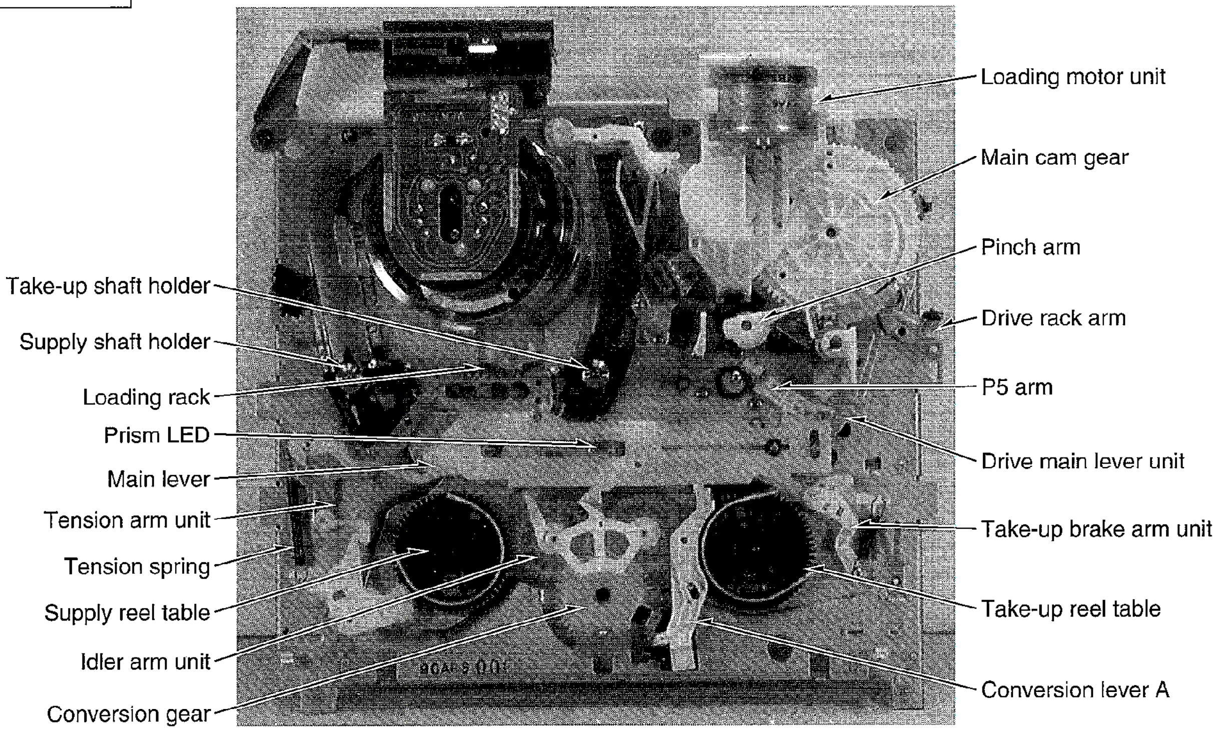
Mechanism mode	Function	Band
EJECT-MID	Soft brake	On
REV	Soft brake	On
PLAY	Release of brake	Off
STOP	Brake	On
FF/REW	Release of brake	Off

1-4. Number of Gear Phase Alignment Point and Replacement Parts

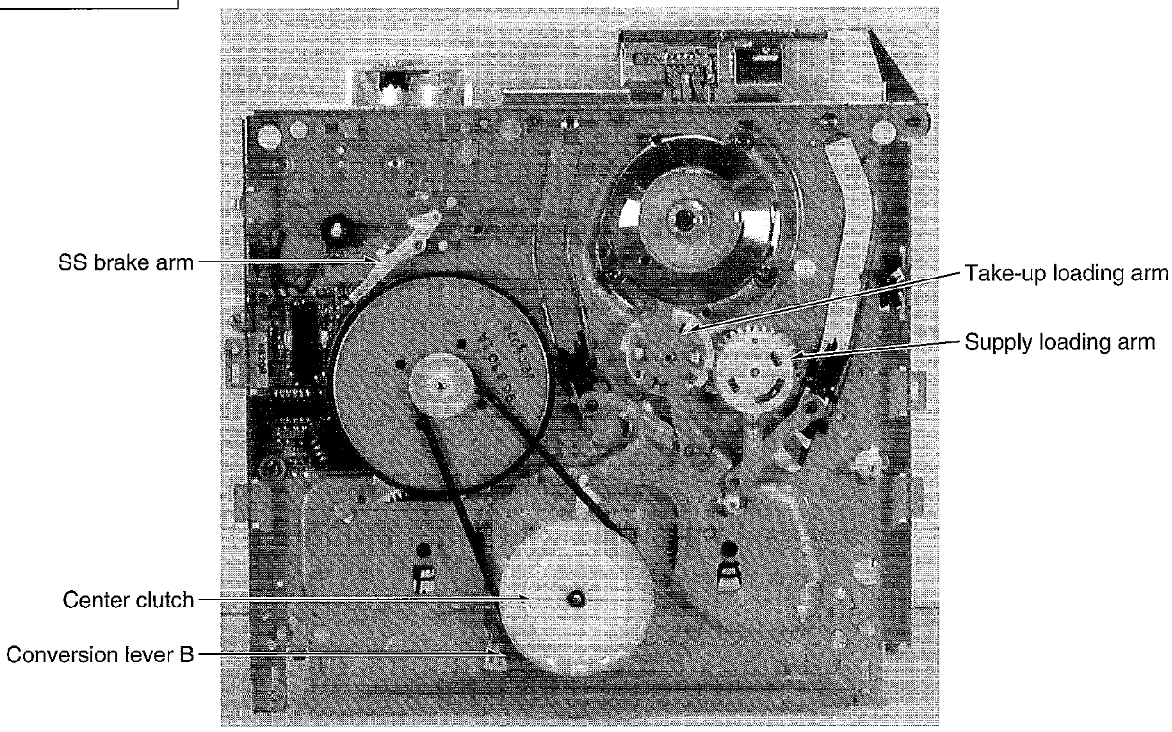
Number of Gear Phase Alignment Point	
G2 Mechanism	12 Alignment Points
G Mechanism	12 Alignment Points
K Mechanism	6 Alignment Points
Z Mechanism	4 Alignment Points
Number of Replacement Parts (including the Screw and Washer)	
G2 Mechanism	Approx.170 Pieces
G Mechanism	Approx. 150 Pieces
K Mechanism	Approx. 100 Pieces
Z Mechanism	Approx. 70 Pieces

Z Mechanism Components

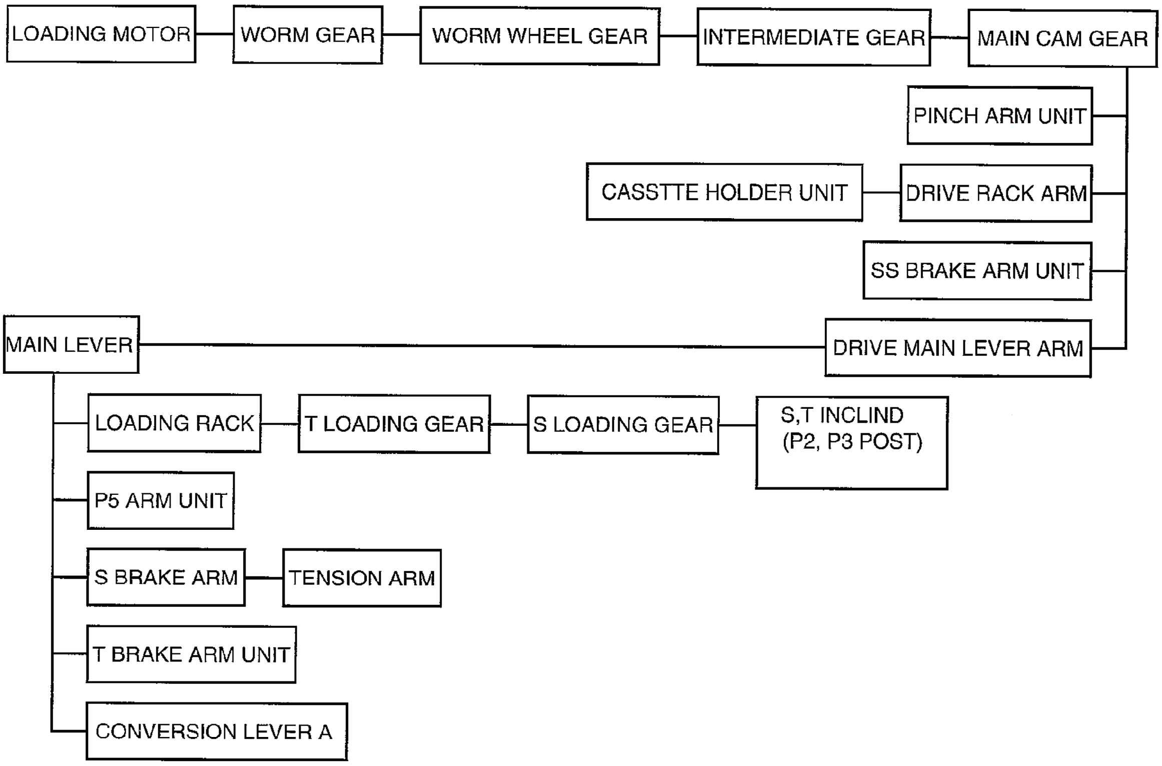
TOP VIEW

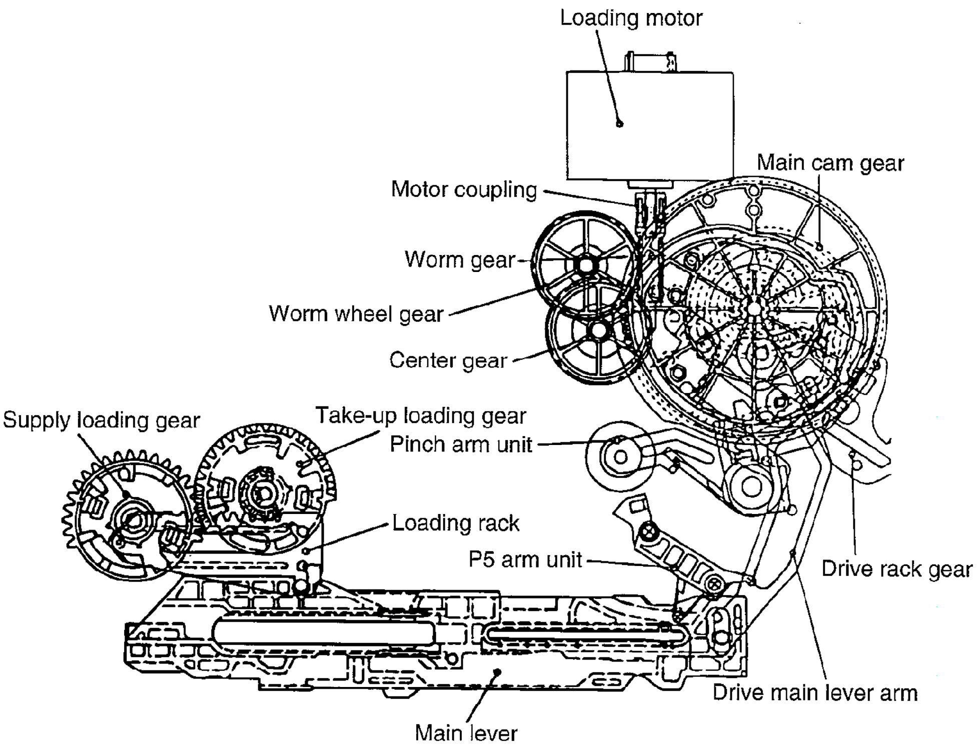

Loading motor unit
Main cam gear
Pinch arm
Take-up shaft holder
Drive rack arm
Supply shaft holder
P5 arm
Loading rack
Prism LED
Drive main lever unit
Main lever
Tension arm unit
Take-up brake arm unit
Tension spring
Supply reel table
Take-up reel table
Idler arm unit
Conversion lever A
Conversion gear

BOTTOM VIEW


SS brake arm
Take-up loading arm
Supply loading arm
Center clutch
Conversion lever B

FLOW CHART OF LOADING MECHANISM


LOADING MOTOR
WORM GEAR
WORM WHEEL GEAR
INTERMEDIATE GEAR
MAIN CAM GEAR
PINCH ARM UNIT
CASSTTE HOLDER UNIT
DRIVE RACK ARM
SS BRAKE ARM UNIT
MAIN LEVER
DRIVE MAIN LEVER ARM
LOADING RACK
T LOADING GEAR
S LOADING GEAR
S,T INCLIND
(P2, P3 POST)
P5 ARM UNIT
S BRAKE ARM
TENSION ARM
T BRAKE ARM UNIT
CONVERSION LEVER A


Loading motor
Main cam gear
Motor coupling
Worm gear
Worm wheel gear
Center gear
Supply loading gear
Take-up loading gear
Pinch arm unit
Loading rack
P5 arm unit
Drive rack gear
Drive main lever arm
Main lever

2. REMOVAL OF CASSETTE TAPE

There are 2 ways to remove a cassette tape.

2-1. Removal of compulsory loading

(1) Press FF, REW and EJECT buttons simultaneously and set the Service Mode 7

(2) Press STOP button in order to unload the mechanism. (Pay an attention of tape slag)
Service Mode Indication :
7 ※※ ※※ (STOP)→7 00 ※※ (EJECT)

2-2 Removal of manual operation of Main cam gear

(1) Disconnect the AC power cord and remove Top Panel.

(2) Rotate Main cam gear to the clockwise and unload the mechanism (Tape is remaining) (Fig. A1).

TOP VIEW

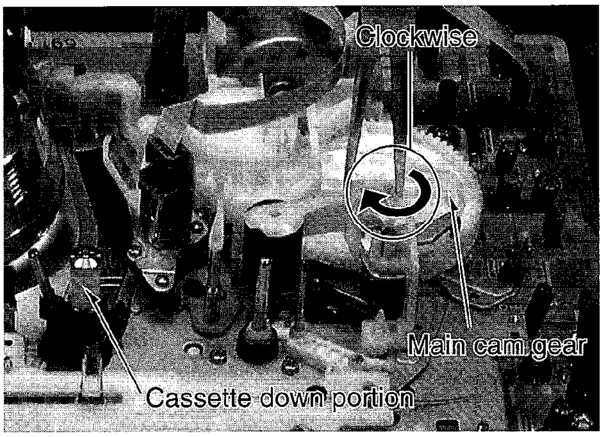


Fig. A1

(3) Rotate the Pole of Capstan motor to the clockwise from the bottom in order to remove the tape slag (Fig. A2).

BOTTOM VIEW

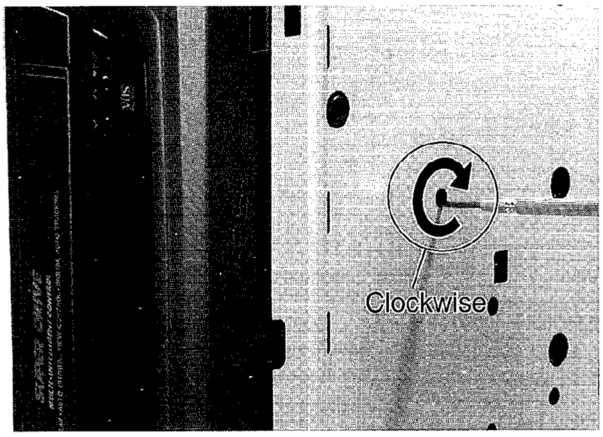


Fig. A2

(4) Rotate Main cam gear to the clockwise in order to eject the cassette tape.

3. REMOVAL OF CASSETTE HOLDER UNIT & MECHANISM CHASSIS

3-1. Removal of Cassette holder unit

(1) Remove Top panel and Front panel unit (Fig. B1)

TOP VIEW

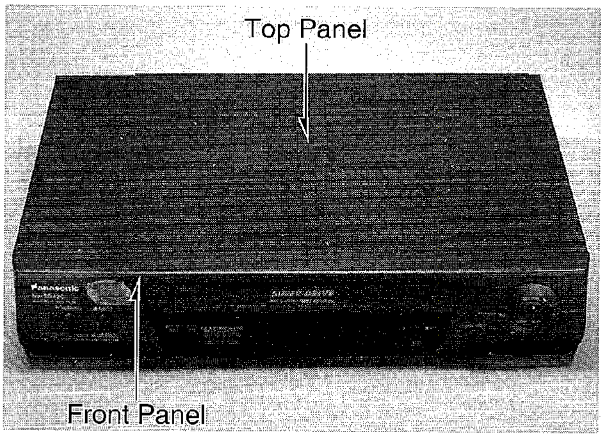

Top Panel
Front Panel

Fig. B1

(2) Remove Top plate

Remove 4 tabs fixing Top plate and remove Top plate (Fig. B2).

※ 4 Tabs should be removed softly due to they are fragile.

TOP VIEW

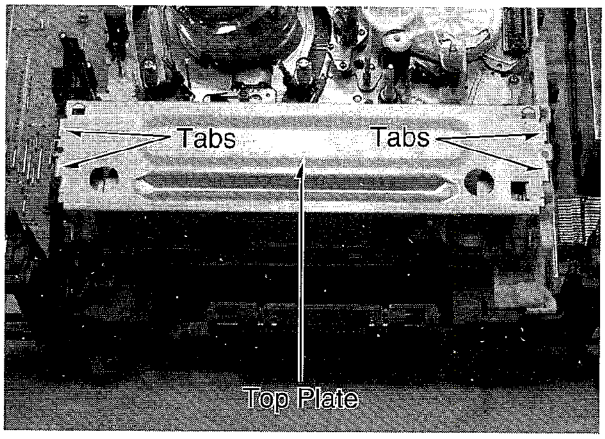

Tabs
Tabs
Top Plate

Fig. B2

(3) Remove Cassette Holder Plate

Keep pressing 2 stoppers on Cassette holder Plate and Press Cassette holder plate to the rear and remove it from Left and Right Side Plate (Fig. B3).

TOP VIEW

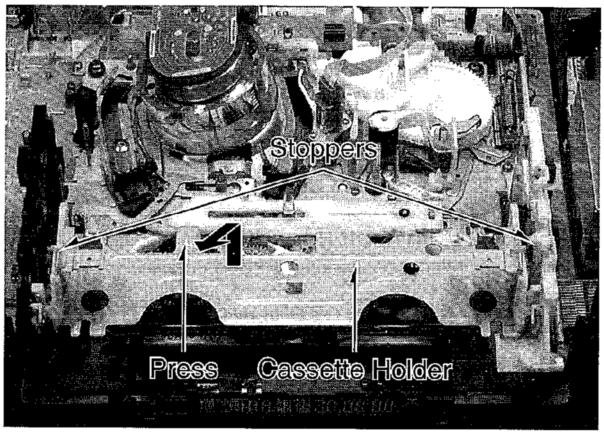

Stoppers
Press
Cassette Holder

Fig. B3

(4) Remove Left and Right Side Plate

Remove Conjuction spring of Drive gear.

Remove 3 red screws, 3 tabs and remove Left and Right Side Plate (Fig. B4, B5).

TOP VIEW

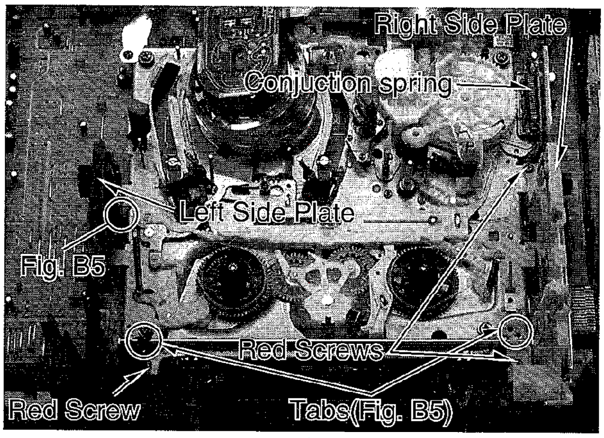

Right Side Plate
Conjuction spring
Left Side Plate
Fig. B5
Red Screws
Red Screw
Tabs(Fig. B5)

Fig. B4

TOP VIEW

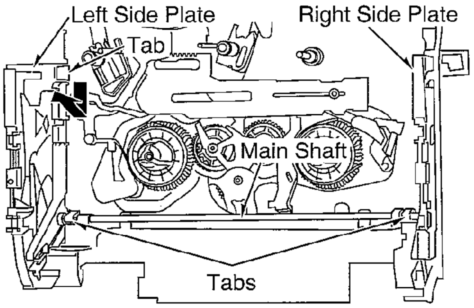

Left Side Plate
Tab
Right Side Plate
Main Shaft
Tabs

Fig. B5

(5) Remove Main shaft (Fig. B6)

TOP VIEW

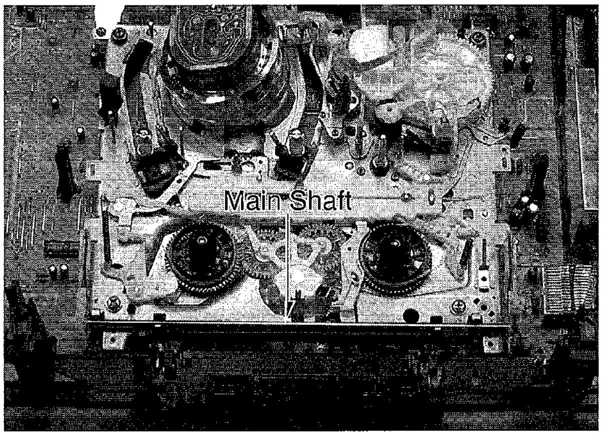


Fig. B6

3-2. Removal of Mechanism chassis

(1) Remove Mechanism chassis

Disconnect P3001, P2502 and P4001. Remove 5 screws (3 red screws and 2 gold screws) on Mechanism chassis and take out Mechanism chassis (Fig. B7).

TOP VIEW

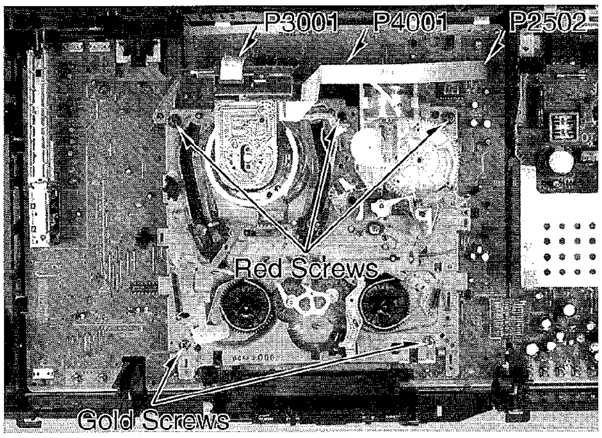

P3001
P4001
P2502
Red Screws
Gold Screws

Fig. B7

4. DISASSEMBLY/ASSEMBLY METHOD FOR MECHANISM

4-1. Disassembly of mechanism

1. Removal of Pinch arm

   Unlock the tab (opener space). Remove Opener space and Pinch arm (Fig. C1).

2. Removal of Loading motor unit

   Unlock 3 tabs and remove Loading motor unit (Fig. C1 C2)

   2 tabs of them located on the bottom of the Mechanism (Fig. C2).

TOP VIEW

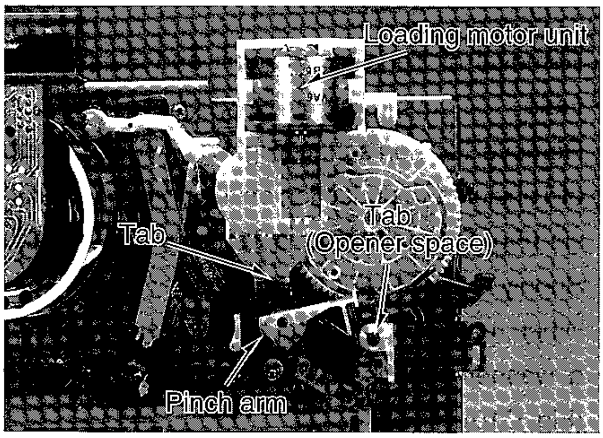

Loading motor unit
Tab
Tab
(Opener space)
Pinch arm

Fig. C1

BOTTOM VIEW

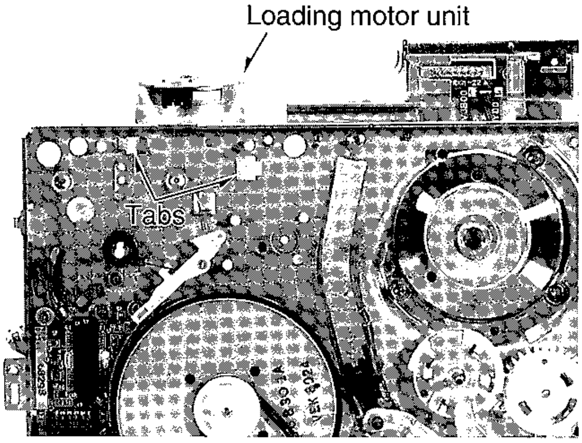

Loading motor unit
Tabs

Fig. C2

3. Removal of Main cam gear

   Remove Snap washer located on the bottom of Chassis by using retaining ring remover (Fig. C3) and remove Main cam gear (Fig. C4).

BOTTOM VIEW

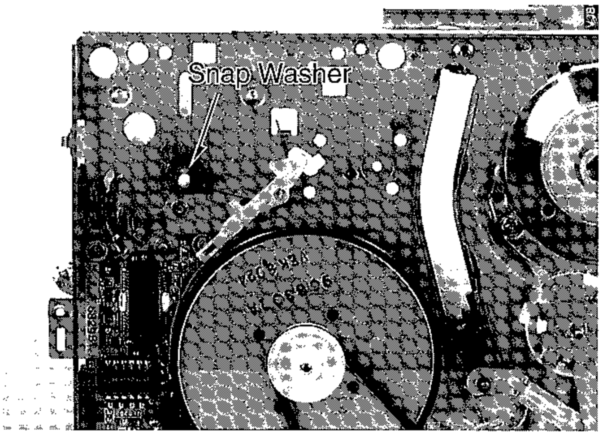

Snap Washer

Fig. C3

TOP VIEW

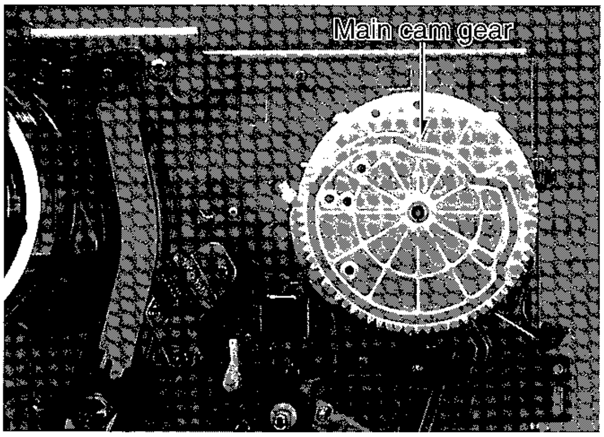

Main cam gear

Fig. C4

4. Removal of Drive rack arm
   Rotate Drive rack arm to the counterclockwise and remove it (Fig. C5)

TOP VIEW

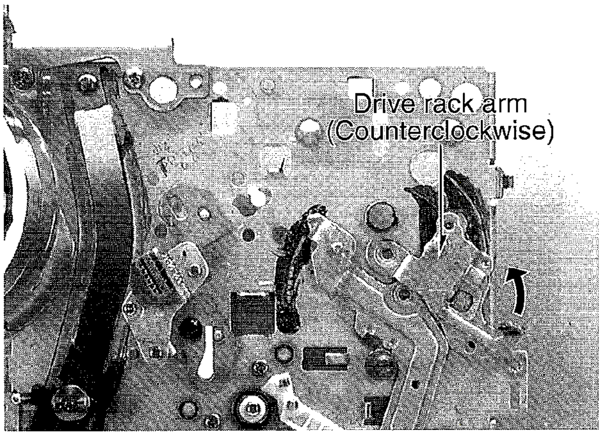

Drive rack arm
(Counterclockwise)

Fig. C5

5. Removal of Main lever, P5 arm and Conversion lever A
   Removal cut washer located on the main lever. Unlock 2 tabs of Prism LED and 1 tab on the projection of Chassis while keep lifting the left side of Main lever, and remove Main lever, P5 arm and Conversion lever A (Fig. C6).

※ It is easier to unlock the tabs by using a tweezer.

TOP VIEW

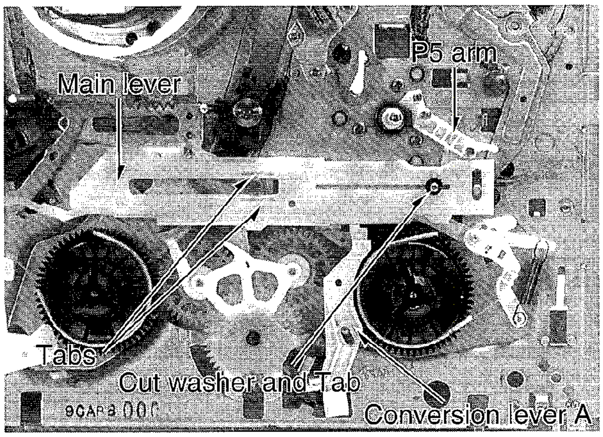

P5 arm
Main lever
Tabs
Cut washer and Tab
Conversion lever A

Fig. C6

6. Removal of Drive main lever arm
   Rotate Drive main lever arm to the counterclockwise and remove it (Fig. C7).

TOP VIEW

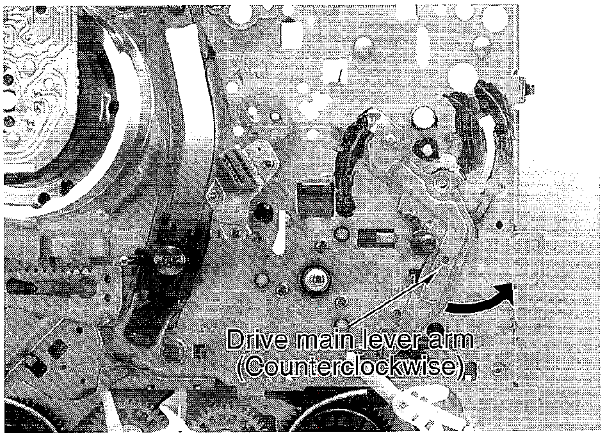

Drive main lever arm
(Counterclockwise)

Fig. C7

7 Removal of Tension arm unit and Supply reel table
Remove Tension spring (Fig. C8). Unlock the tab of Tension arm projection on the bottom of Chassis (Fig. C9) and remove Tension arm unit and Supply reel table (Fig. C8).

※ When remove supply reel table, be sure whether a washer attaches on Supply reel table shaft (Fig. C10).

TOP VIEW

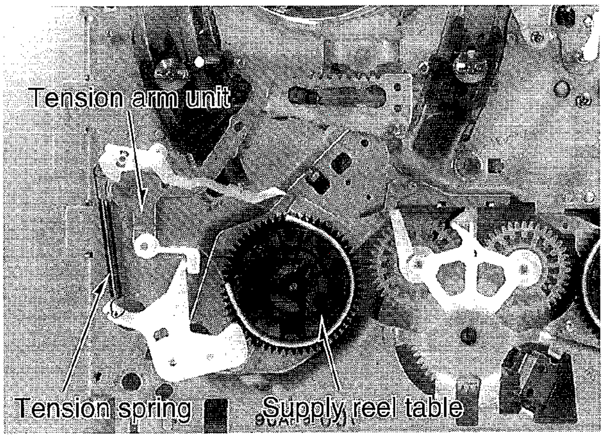

Tension arm unit
Tension spring
Supply reel table

Fig. C8

BOTTOM VIEW

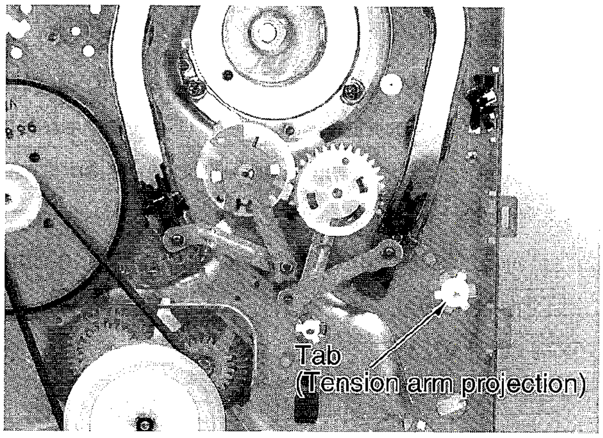

Tab
(Tension arm projection)

Fig. C9

SIDE VIEW

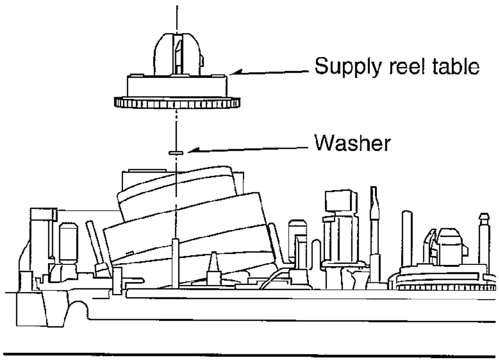

Supply reel table
Washer

Fig. C10

8 Remove of Take-up brake arm unit and Take-up reel table

Unlock the tab of Take-up brake arm unit from the bottom of Chassis (Fig. C12). Remove Take-up brake arm unit and Take-up reel table (Fig. C11).

※ When remove Take-up reel table, be sure whether a washer attaches on Take-up reel table shaft (Fig. C13).

TOP VIEW

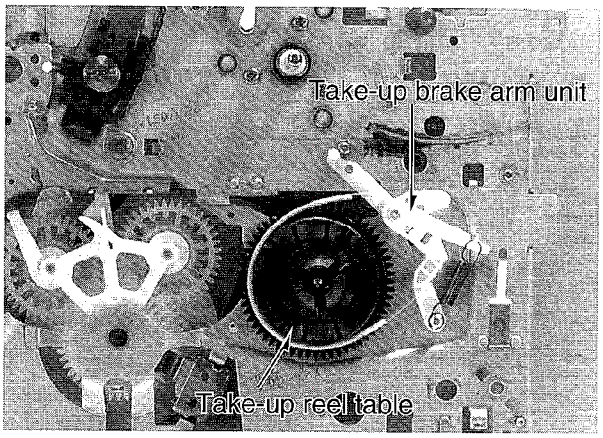

Take-up brake arm unit
Take-up reel table

Fig. C11

BOTTOM VIEW

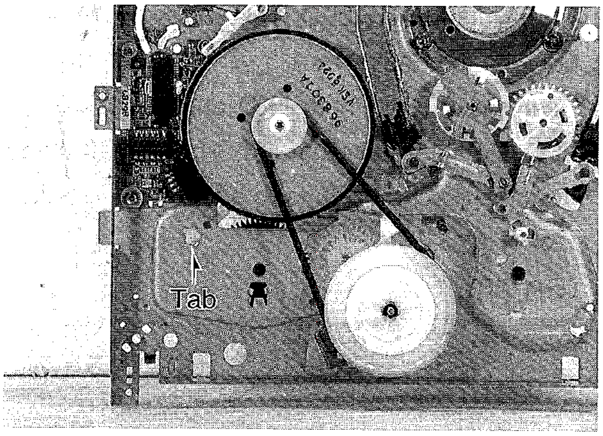


Fig. C12

SIDE VIEW

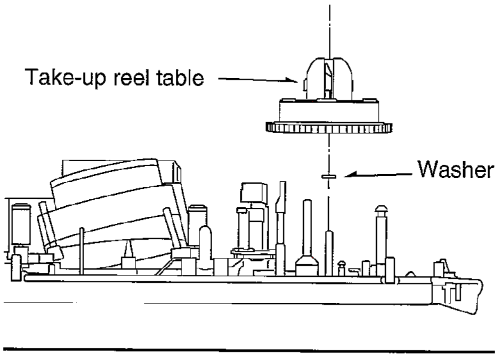

Take-up reel table
Washer

Fig. C13

9. Removal of Take-up & Supply loading arm

Unlock the tab and remove Take-up and Supply loading arm (Fig. C14).

BOTTOM VIEW

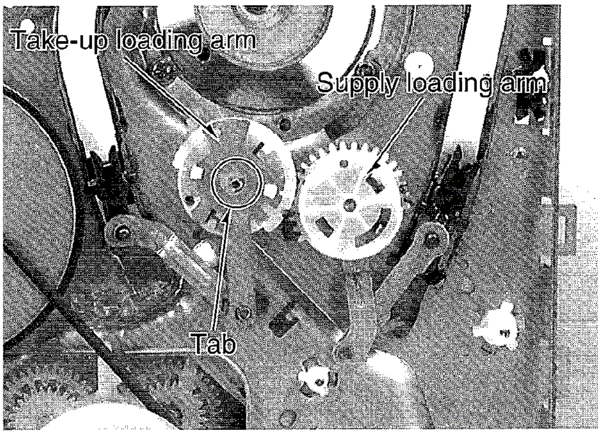

Take-up loading arm
Supply loading arm
Tab

Fig. C14

10 Removal of Prism LED, Take-up & Supply shaft holder and Loading rack

Push the tab of Prism LED and remove Prism LED Remove Take-up and Supply shaft holder from the groove of Chassis and remove Loading rack (Fig. C15).

TOP VIEW

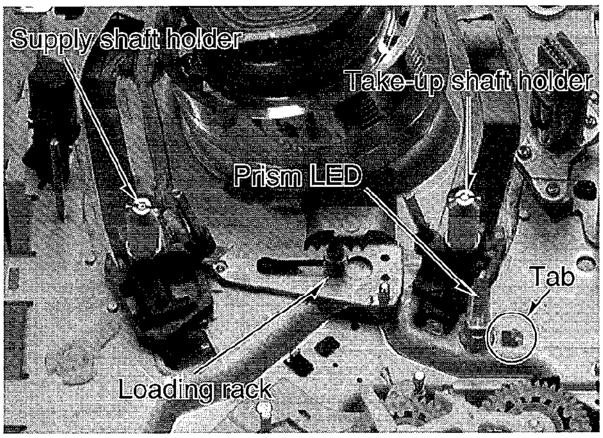

Supply shaft holder
Take-up shaft holder
Prism LED
Tab
Loading rack

Fig. C15

11. Removal of Center clutch, Conversion gear spring, Conversion gear, Conversion lever B and Idler arm unit

Remove the Belt and the Cut washer (Fig. C16).

Remove Center clutch (Fig. C16) Conversion gear spring, Conversion gear, Conversion lever B and Idler arm unit (Fig. C17).

※ Pay an attention of Conversion gear spring during the removal.

BOTTOM VIEW

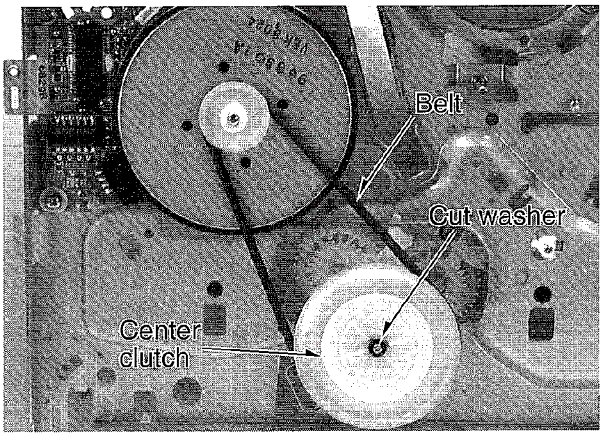

Belt
Cut washer
Center clutch

Fig. C16

BOTTOM VIEW

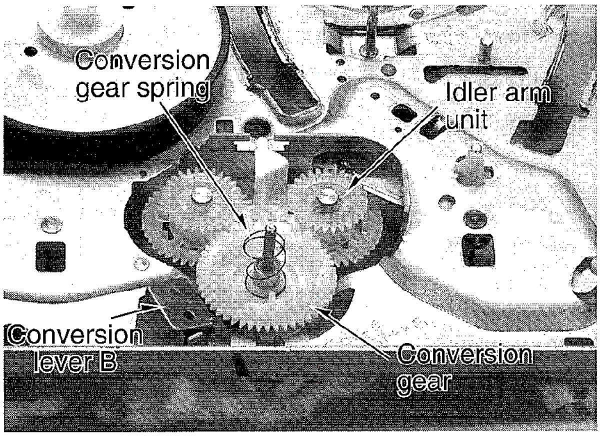

Conversion gear spring
Idler arm unit
Conversion lever B
Conversion gear

Fig. C17

12. Removal of Capstan unit

Remove 3 gold screws (Fig. C18).

Remove 2 gold screws on the bottom of Chassis (Fig. C19)

Keep moving SS brake arm and remove Capstan unit.

TOP VIEW

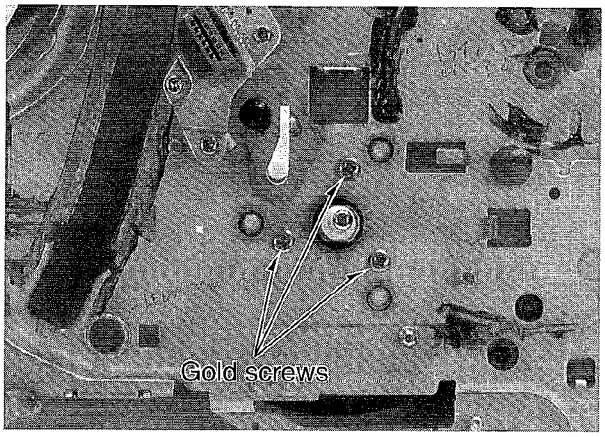

Gold screws

Fig. C18

BOTTOM VIEW

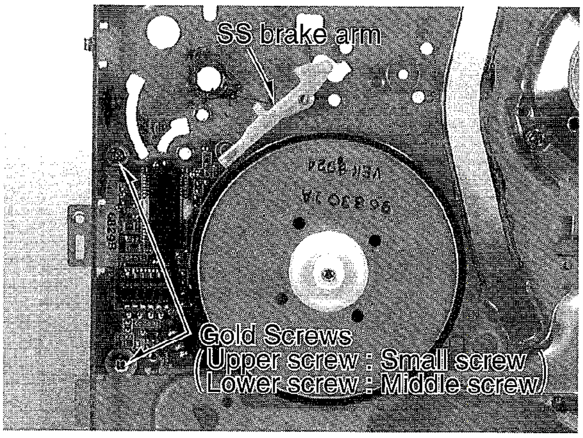

SS brake arm
Gold Screws
(Upper screw : Small screw)
(Lower screw : Middle screw)

Fig. C19

13. Removal of Cylinder unit

Removal red screw (Fig. C20).

Remove 3 gold screws on the bottom of Chassis and remove Cylinder unit (Fig. C21).

TOP VIEW

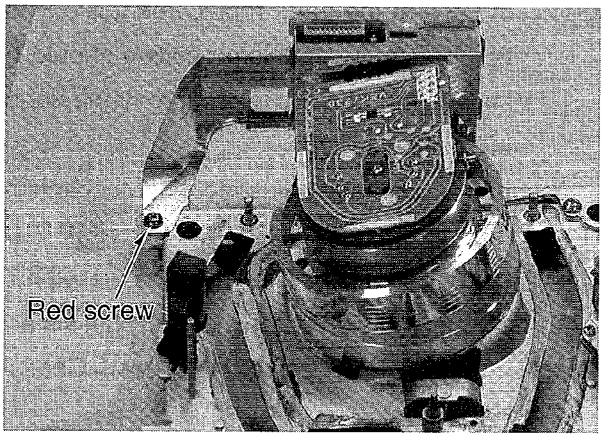


Fig. C20

BOTTOM VIEW

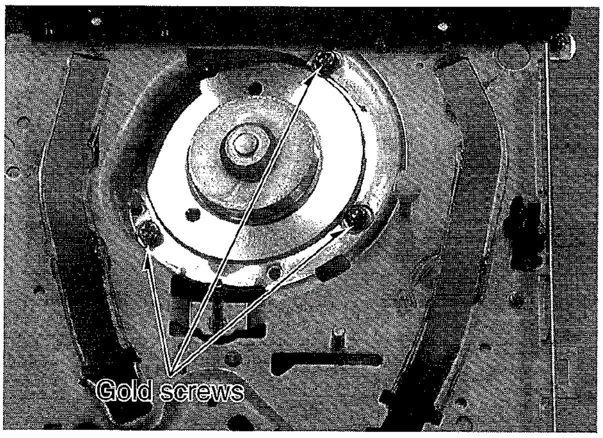

Gold screws

Fig. C21

4-2. Assembly and phase adjustment of mechanism

The gear phase alignment has been performed in the EJECT position and it is crucial for the Z Mechanism to operate correctly.

NOTE: In case of the parts replacement like Position switch, Mechanism position should be set to Eject position in order to fit the phase of Position switch

1 Assembly and phase adjustment of Mechanism

(1) Assembly of Cylinder unit

Cylinder unit should be fixed by 3 screws (GOLD) from the bottom side of Mechanism chassis and red screw on the top side of Mechanism Chassis (Fig. E1, E2).

BOTTOM VIEW

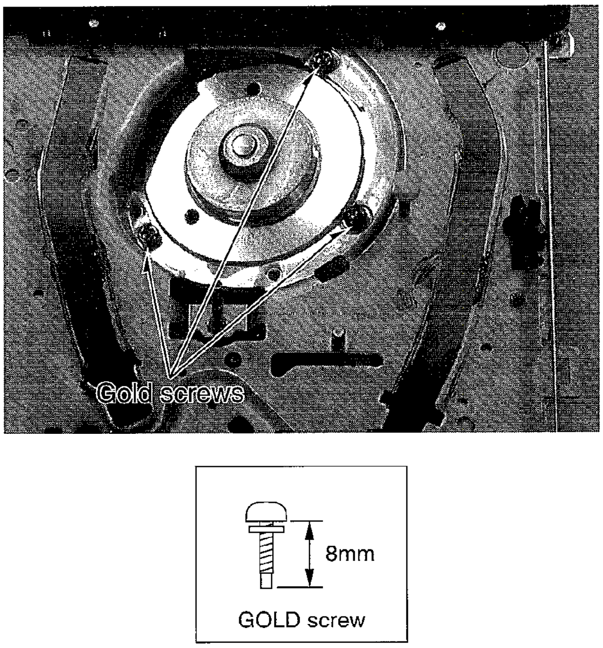

Gold screws
8mm
GOLD screw

Fig. E1

TOP VIEW

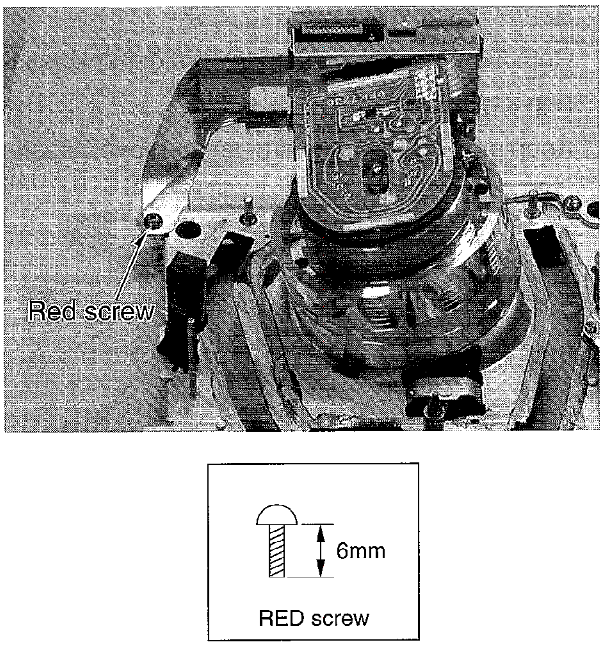

Red screw
6mm
RED screw

Fig. E2

(2) Assembly of Capstan unit

Move SS brake arm in the direction of arrow (see Fig. E3) and capstan unit should be fixed by 2 screws (GOLD) on the bottom side of Mechanism chassis and 3 screws (GOLD) on the top of Mechanism chassis (Fig. E3 E4)

BOTTOM VIEW

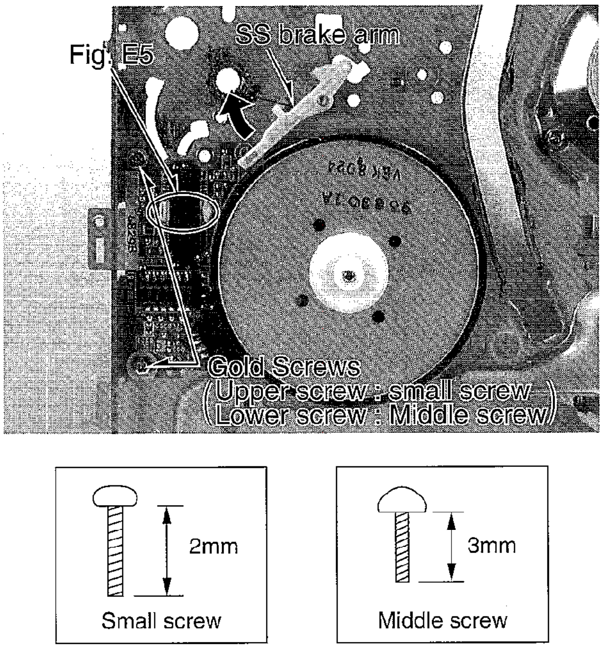
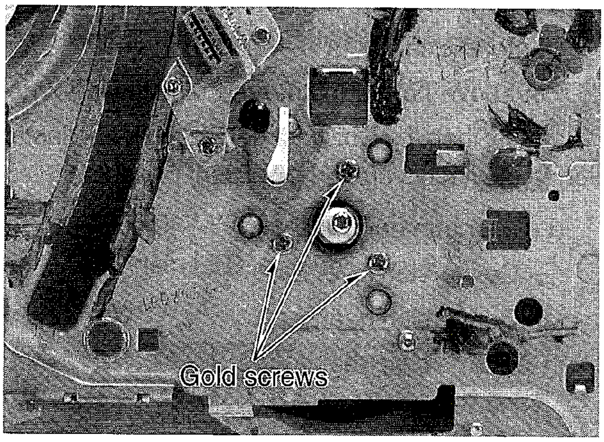


Fig. E5
SS brake arm
Gold Screws
(Upper screw : small screw)
(Lower screw : Middle screw)
2mm
Small screw
3mm
Middle screw

Fig. E3

TOP VIEW



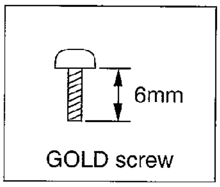


Fig. E4

NOTE: Replacement of Capstan unit and Procedure of applying the silicone grease.

REPLACEMENT OF CAPSTAN UNIT

In case of replacement of the Capstan Unit the Silicone grease have to be applied between the Mechanism chassis and the Drive IC by the following procedure.

Silicone grease No. VFK1301 for radiation of the Drive IC

Silicone grease is used for the radiation of the Drive IC. The heat occurred on the IC is radiated to the Mechanism chassis through the grease. In case of the incomplete radiation, the safety circuit operates depending on the rise of the temperature and it possibility stop the operation of the Drive IC

PROCEDURE OF APPLYING THE SILICONE GREASE

① There is a cut-out part at the Drive IC mounting position and the bottom of the IC can be seen from the cut-out part Apply the Silicon grease to whole the cut-out part of IC as shown in Fig. E5-1 so that the grease is piled 0.3–0.5 mm from the surface of the C.B.A.

② Next, from the component side of the C.B A., apply the Silicon grease so that the grease is piled at the metal of the center of the IC as shown in Fig. E5-2.

Fig. E5-1. Apply the Silicon grease so that the grease is piled 0.3–0.5 mm from the surface of the C.B.A.

Fig. E5-2. Apply the Silicon grease at the metal of the center of the IC.

SIDE VIEW

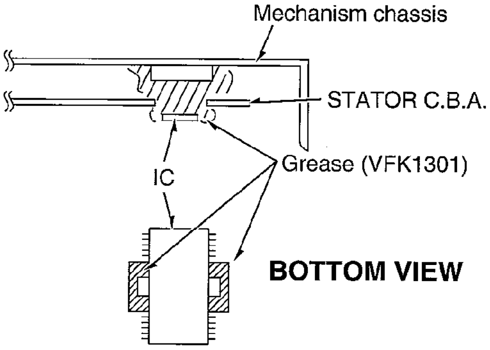


Fig. E5

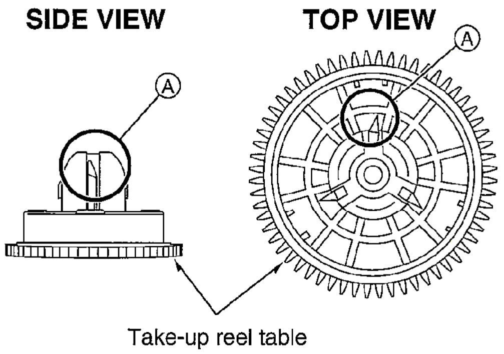

SIDE VIEW
TOP VIEW
Ⓐ
Ⓐ
Take-up reel table

Fig. E11

(7) Assembly of Supply reel table and Tension arm unit
Install washer (Fig. E13) and Supply reel table. Insert Tension arm unit to Tension arm projection and hang Tension spring with Supply spring arm projection (Fig. E12).

※1 Pay an attention of Position of the Supply spring arm.

NOTE: The shape between portion A for Take-up reel table and portion B for Supply reel table is different.
Therefore, confirm the shape of portion A and B before mounting reel tables. If Take-up reel table has been confused with Supply reel table and they have been installed, the trouble of reel table rotation slip happens (Fig. E14).

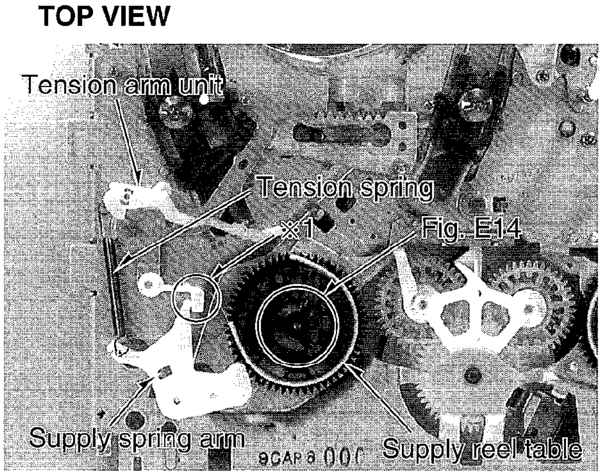

TOP VIEW
Tension arm unit
Tension spring
※1
Fig. E14
Supply spring arm
9CAP8 00C
Supply reel table

Fig. E12

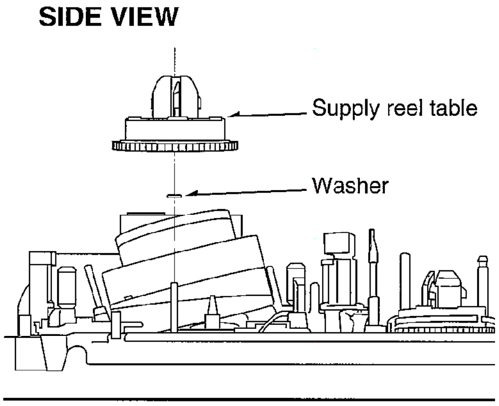

SIDE VIEW
Supply reel table
Washer

Fig. E13

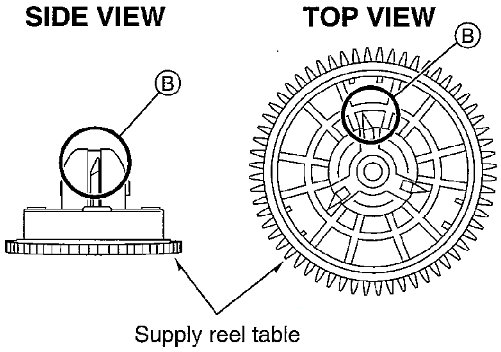

SIDE VIEW
TOP VIEW
Ⓑ
Ⓑ
Supply reel table

Fig. E14

(8) Assembly of Drive main lever arm
Install Drive main lever arm so that Drive main lever arm fits to the groove of Chassis.
And rotate Drive main lever arm to the clockwise in order to adjust the phase between the hole of the position fixture and the penetration hole of Chassis (Fig. E15).

TOP VIEW

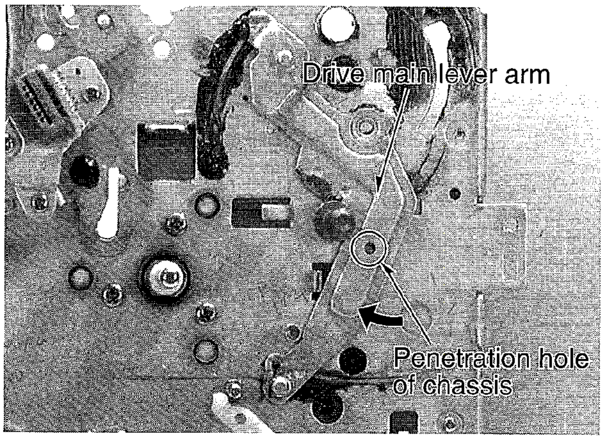

Drive main lever arm
Penetration hole of chassis

Fig. E15

(9) Assembly of Conversion lever A, P5 arm and Main lever

Install Conversion lever A and P5 arm (Fig. E16, E17).

Adjust the phase of Main lever so that Main lever fits the projection of Loading rack.

Main lever has to be locked at the projection of Chassis by 2 tabs of Prism LED (Fig. E16).

※ Conversion lever A, P5 arm, Supply brake arm unit and the projection of Take-up brake arm have to be installed to the groove under the Main lever (Fig. E18).

TOP VIEW

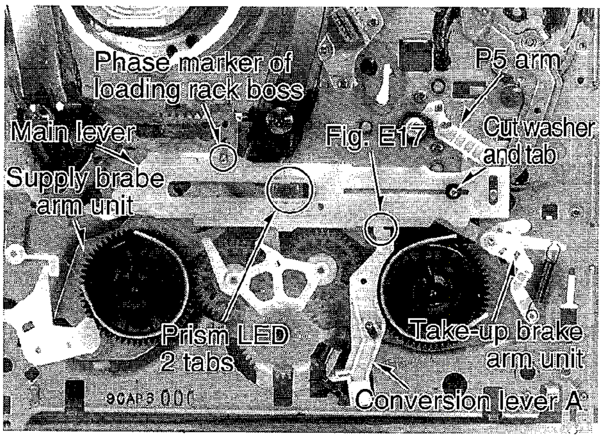

Phase marker of loading rack boss
P5 arm
Main lever
Fig. E17
Cut washer and tab
Supply brabe arm unit
Prism LED 2 tabs
Take-up brake arm unit
Conversion lever A

Fig. E16

TOP VIEW

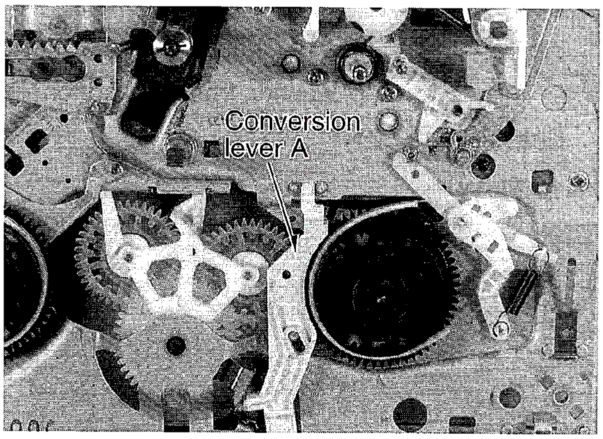

Conversion lever A

Fig. E17

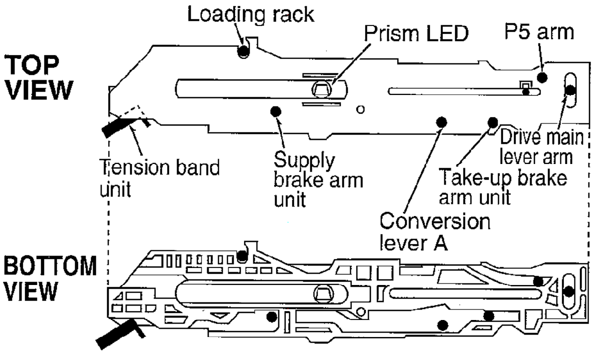

TOP VIEW
Loading rack
Prism LED
P5 arm
Drive main lever arm
Tension band unit
Supply brake arm unit
Take-up brake arm unit
Conversion lever A
BOTTOM VIEW

Fig. E18

(10) Assembly of Drive rack arm

Install Drive rack arm so that Drive rack arm fits the groove of Chassis and rotate it to the clockwise in order to fit the penetration hole of Chassis (Fig. E19)

TOP VIEW

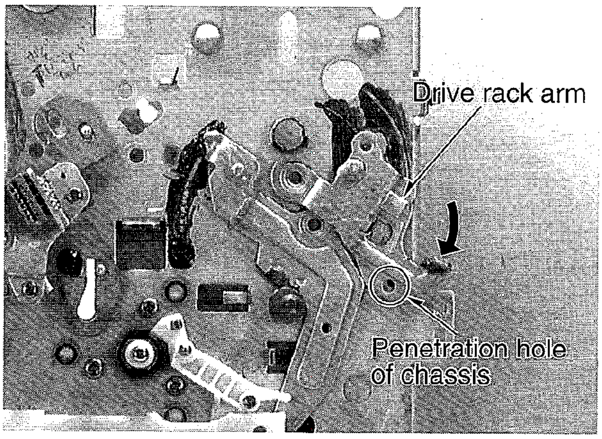

Drive rack arm
Penetration hole of chassis

Fig. E19

(11) Assembly of Main cam gear

Install Main cam gear so that Main cam gear fits the penetration hole of Chassis (Fig. E20) and fix it by the snap washer from the bottom of Chassis (Fig. E21).

TOP VIEW

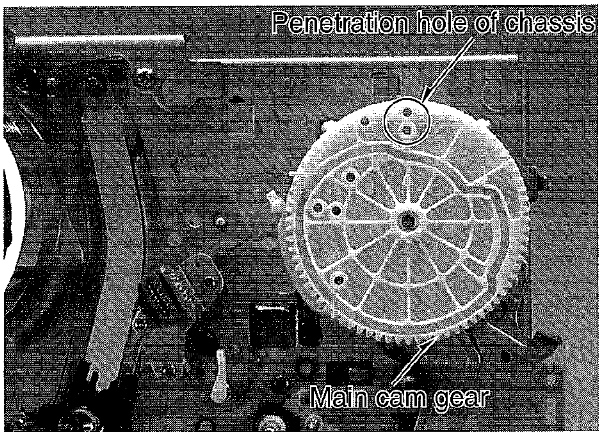

Penetration hole of chassis
Main cam gear

Fig. E20

BOTTOM VIEW

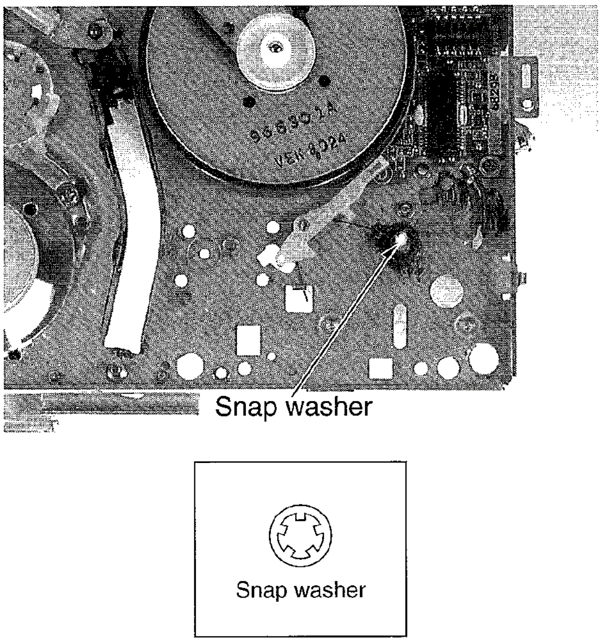

Snap washer
Snap washer

Fig. E21

(12) Assembly of Loading motor unit

Install Loading motor unit so that Loading motor unit fits the groove of Chassis (Fig. E22).

(13) Assembly of Pinch arm

Put Pinch arm together and install Opener space to fix Pinch arm (Fig. E22).

TOP VIEW

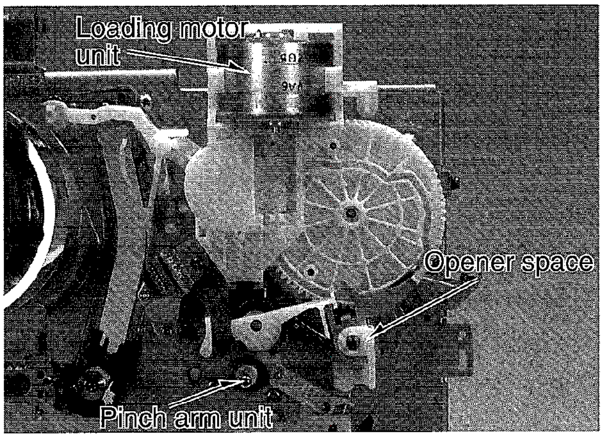

Loading motor unit
Opener space
Pinch arm unit

Fig. E22

4-3 Assembly of mechanism chassis

1 Assembly of Mechanism chassis

(1) Adjust the phase of Position switch in Main C B A..

Rotate Position switch until the click point. The projection of Position switch should be set to just above (Fig. F1)

TOP VIEW

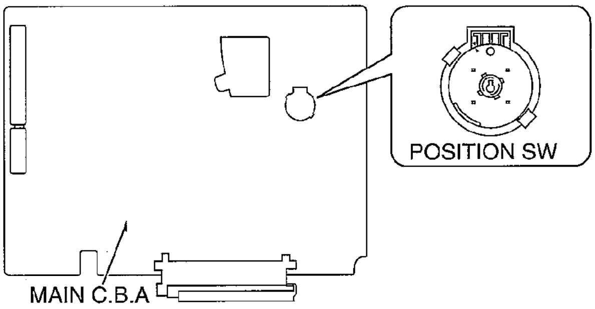
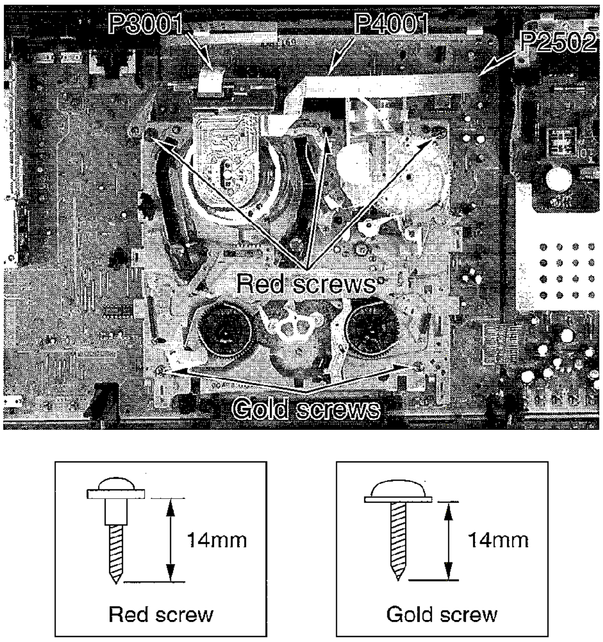

POSITION SW
MAIN C.B.A

Fig. F1

(2) Assembly of Mechanism chassis

Put Mechanism chassis on Main C.B.A. and fix it by 5 screws (3 red screws and 2 gold screws). Connect P3001, P2502 and P4001 (Fig. F2)

TOP VIEW


P3001
P4001
P2502
Red screws
Gold screws
14mm
14mm

Red screw

Gold screw

Fig. F2

※ The red screws has a gap among the chassis. Therefore be careful not to tighten too much.

2. Assembly of Cassette holder unit

(1) Assembly of Main shaft

Install Main shaft so that Main shaft fits the groove of Chassis (Fig. F3)

TOP VIEW

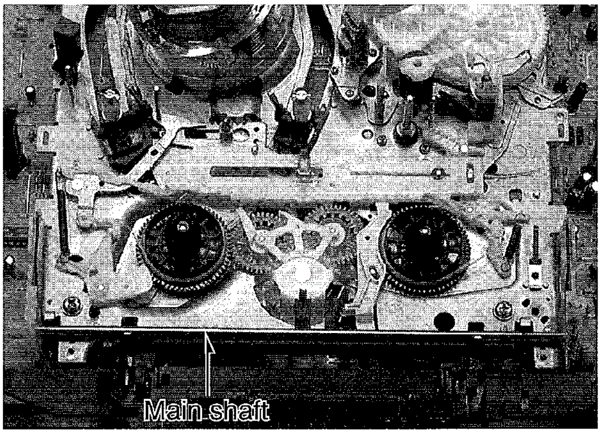


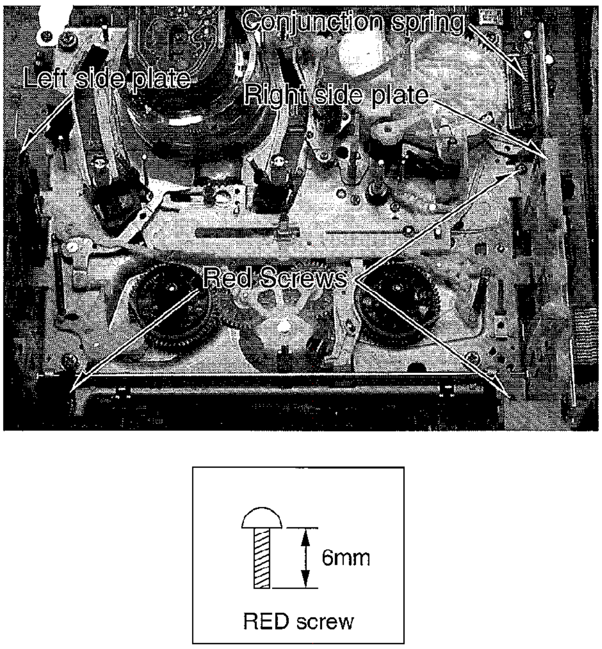
Fig. F3

(2) Assembly of Left & Right side plate

Install Left side plate so that Left side plate fits the groove of Chassis and fix it by the red screws.

After adjustment the phase of waper arm and Drive rack (Fig. F5), install Right side plate so that Right side plate fits the groove of Chassis and fix it by 2 red screws. Hang Conjunction spring on the projection of Drive rack arm (Fig. F4, F5).

TOP VIEW


Conjunction spring
Left side plate
Right side plate
Red Screws
6mm

RED screw

Fig. F4

SIDE VIEW

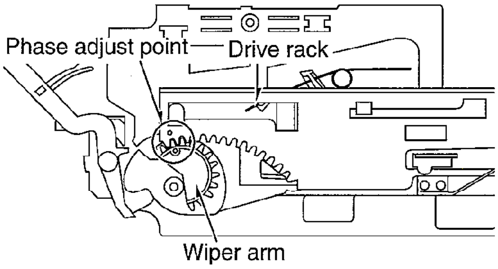

Phase adjust point
Drive rack
Wiper arm

Fig. F5

TOP VIEW

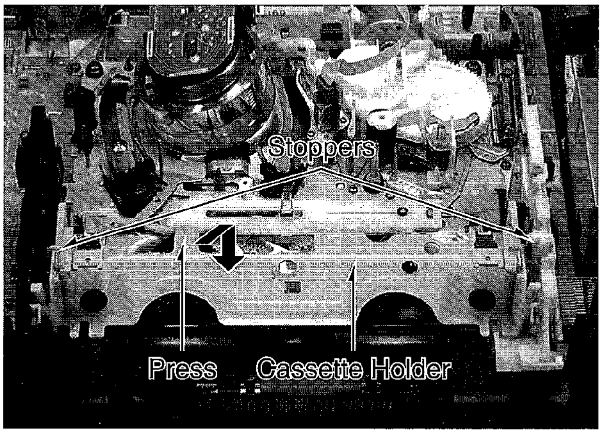

Stoppers
Press
Cassette Holder

Fig. F6

(3) Assembly of Cassette holder
Install Cassette holder so that Cassette holder fits the groove of Waper arm installed in Main shaft (Fig. F6, F7).

TOP VIEW

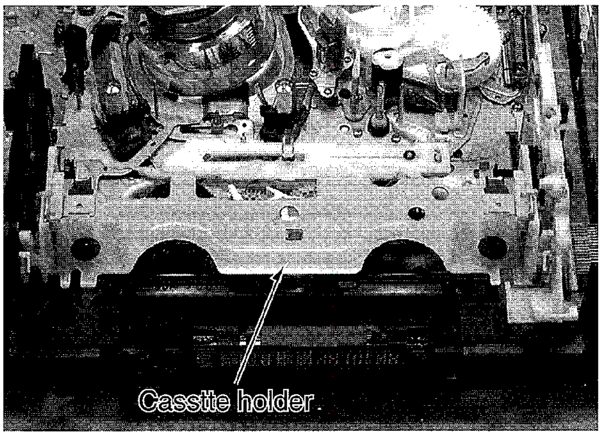

Cassttle holder.

Fig. F7

(4) Assembly of Top plate
Install Top plate so that Top plate fits the groove of Left and Right side plate.

※ Fix Top plate by tightening screw when the tabs of Left and Right side plate broke (Fig. F8)

TOP VIEW

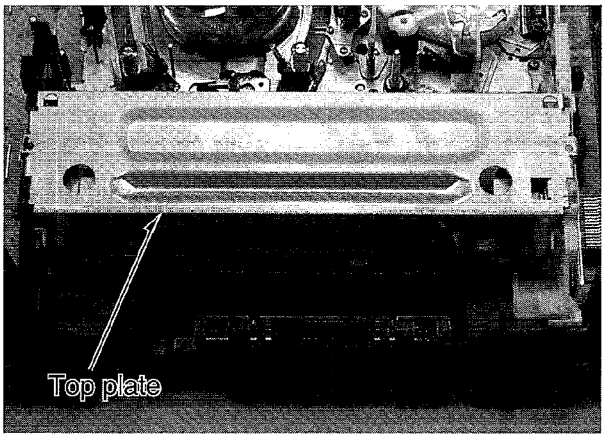
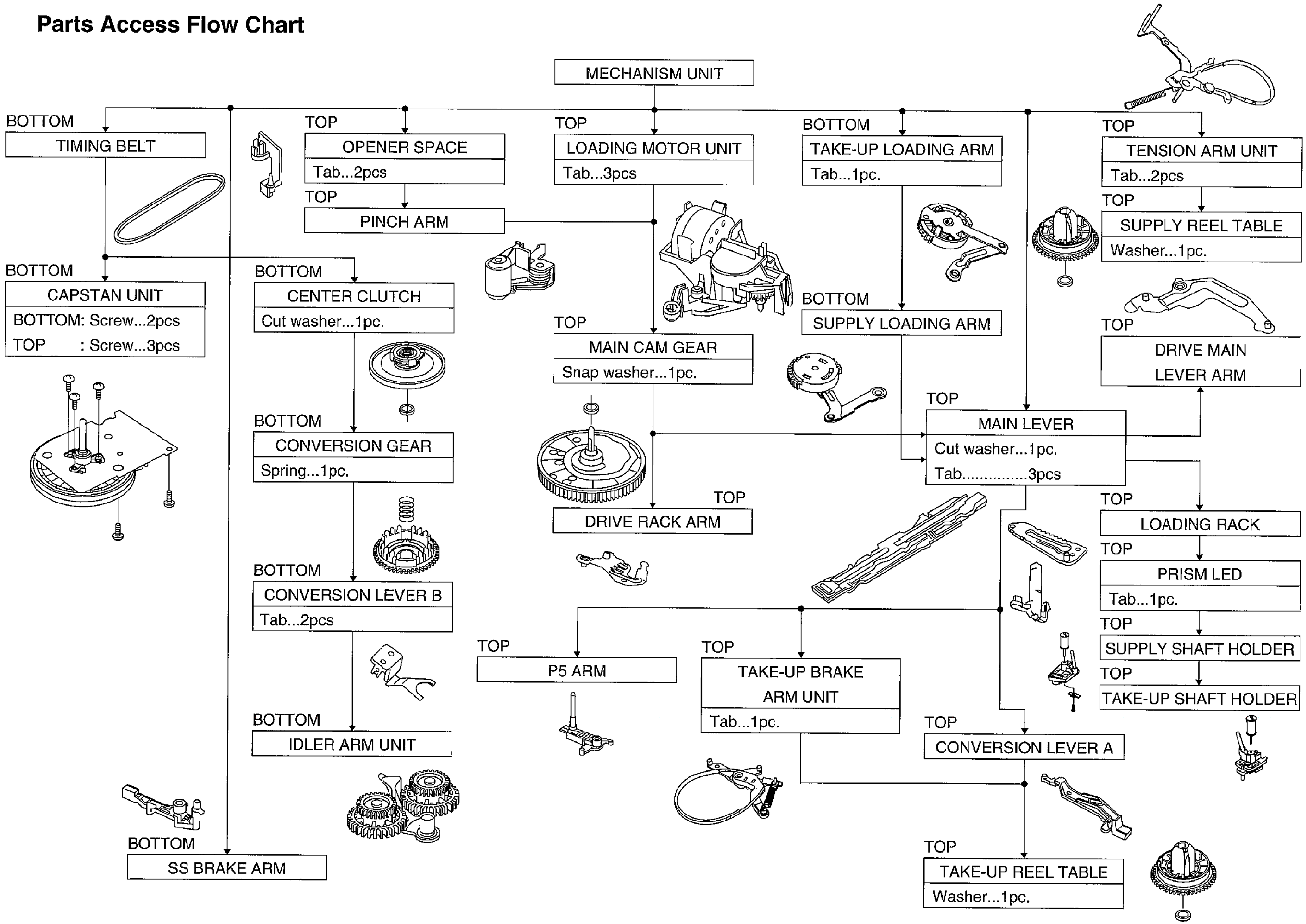


Fig. F8

(5) Install Front panel unit and Top panel

Parts Access Flow Chart


MECHANISM UNIT
BOTTOM
TIMING BELT
BOTTOM
CAPSTAN UNIT
BOTTOM: Screw...2pcs
TOP : Screw...3pcs
TOP
OPENER SPACE
Tab...2pcs
TOP
PINCH ARM
BOTTOM
CENTER CLUTCH
Cut washer...1pc.
BOTTOM
CONVERSION GEAR
Spring...1pc.
BOTTOM
CONVERSION LEVER B
Tab...2pcs
BOTTOM
IDLER ARM UNIT
BOTTOM
SS BRAKE ARM
TOP
LOADING MOTOR UNIT
Tab...3pcs
TOP
MAIN CAM GEAR
Snap washer...1pc.
TOP
DRIVE RACK ARM
BOTTOM
TAKE-UP LOADING ARM
Tab...1pc.
BOTTOM
SUPPLY LOADING ARM
TOP
MAIN LEVER
Cut washer...1pc.
Tab..............3pcs
TOP
P5 ARM
TOP
TAKE-UP BRAKE ARM UNIT
Tab...1pc.
TOP
CONVERSION LEVER A
TOP
TAKE-UP REEL TABLE
Washer...1pc.
TOP
TENSION ARM UNIT
Tab...2pcs
TOP
SUPPLY REEL TABLE
Washer...1pc.
TOP
DRIVE MAIN LEVER ARM
TOP
LOADING RACK
TOP
PRISM LED
Tab...1pc.
TOP
SUPPLY SHAFT HOLDER
TOP
TAKE-UP SHAFT HOLDER

5. MECHANICAL ADJUSTMENT PROCEDURE

5-1. Tension post position adjustment

Equipment required: Hex. Wrench (VFK0326)
Specification: 50.5±1.5 mm

(1) Disconnect the AC plug.
(2) Remove the TOP PLATE.
(3) Turn the LOADING MOTOR until the loading completes.
(4) Adjust the hole of Tension Band Fastener by Hex Wrench until the distance between the Tension Post and the center of Supply reel table is 50.5±1.5 mm as shown in Fig. M1.

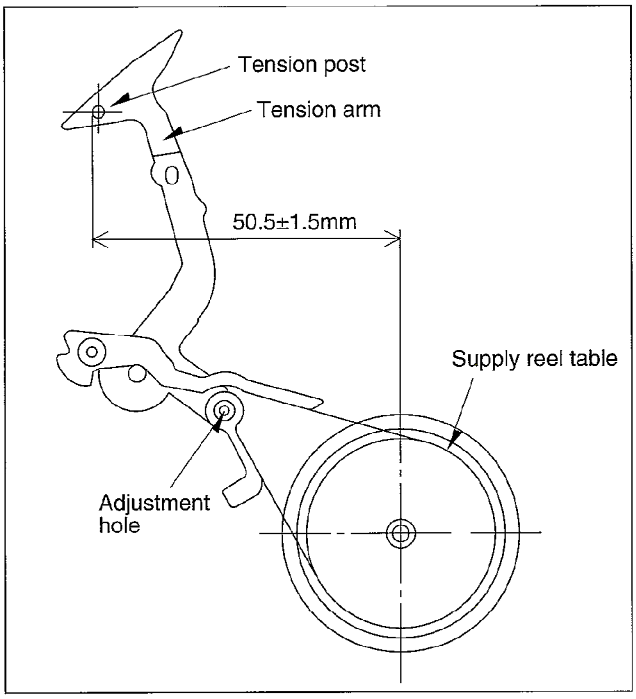

Tension post
Tension arm
50.5±1.5mm
Supply reel table
Adjustment hole

Fig. M1

5-2. Back tension adjustment

Equipment required:
Back Tension Meter (VFK0132)
VHS Cassette tape (180 minutes tape: PAL)
VHS Cassette tape (120 minutes tape: NTSC)
Specification: 22.5–27.5g

(1) Playback the cassette tape from the beginning and wait until the tape movement get the stabilization. (for approx. 10–20 seconds)
(2) Insert the Back Tension Meter into the path of a tape, and measure the back tension to be within specification as shown in Fig. M2.

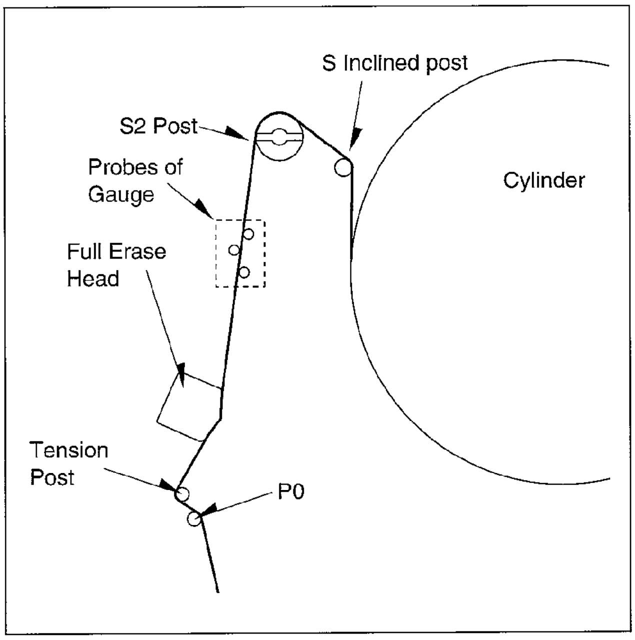

S Inclined post
S2 Post
Probes of Gauge
Cylinder
Full Erase Head
Tension Post
P0

Fig. M2

(3) If it is out of specification, change the spring notch as shown in Fig. M3.

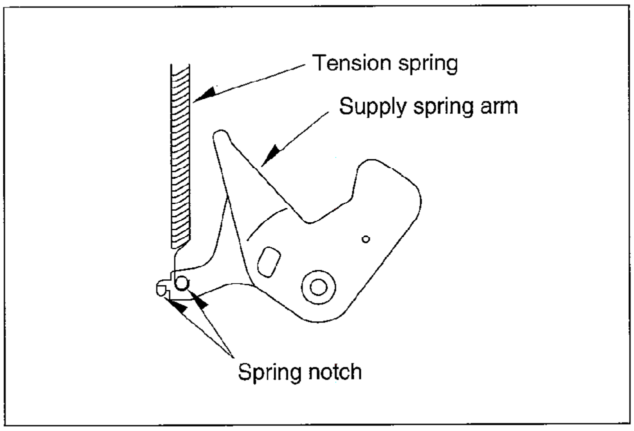

Tension spring
Supply spring arm
Spring notch

Fig. M3

5-3. P2 and P3 posts adjustment (PREADJUSTMENT)

Equipment Required:
Post Adjustment Screwdriver (VFK0329)

(1) Remove the Top Plate.

(2) Turn the Loading Motor until the unloading completes.

(3) Rotate the P2 and P3 Posts clockwise to the end. (Fig. M4)

(4) Rotate the P2 and P3 Posts twice counterclockwise. (Fig. M4)

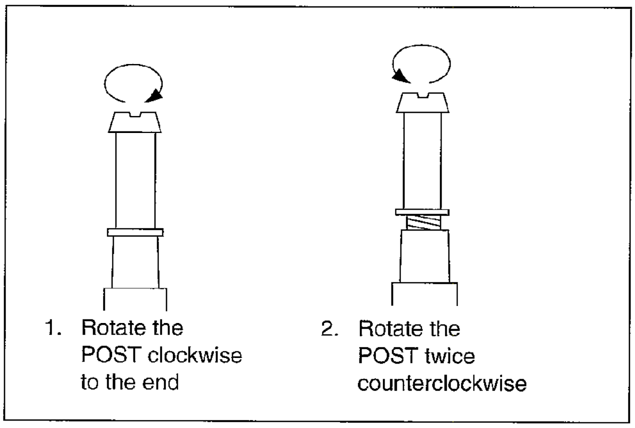

1. Rotate the POST clockwise to the end
2. Rotate the POST twice counterclockwise

Fig. M4

(5) Playback the cassette tape and make sure that the edges of the tape are not curling at the bottom or top end of the P2, P3, and P4 Posts as shown in Fig. M5.

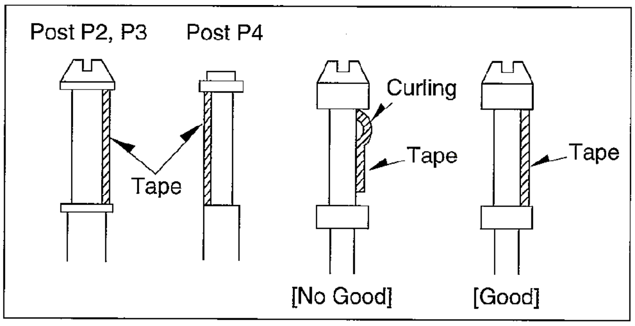


Fig. M5

(6) If the curling appears, readjusts the P2 and P3 Posts.

5-4. Tape interchangeability adjustment

Carry out the following procedures for Tape Interchangeability Adjustment to do it correctly and smoothly.

(1) P2 AND P3 POSTS ADJUSTMENT

(2) ADJUSTMENT OF P4 POST

(3) HEIGHT ADJUSTMENT OF A/C HEAD

(4) FINE-ADJUSTMENT OF A/C HEAD

(5) ADJUSTMENT OF X-VALUE (PREADJUSTMENT)

(6) FINE-ADJUSTMENT OF X-VALUE

If the Tape Interchangeability Adjustment is not perfect, repeat the above procedures from (1) to (6).

CAUTIONS: To make an Adjustment Mode for Tape Interchangeability, press the FF, REW and EJECT buttons simultaneously 3 times to set the Service Mode 2.

NOTE: Cleaning the Tape Transport path before adjusting of Tape Interchangeability. The detail portion is shown below.
P0 Post, Tension Posts, FE Head, P2 Post, Supply Inclined Post, Cylinder Unit, Take-up Inclined Post, P3 Post, A/C Head, P4 Post, Pinch Roller, Capstan Shaft, P5 Post. FE Head, Cylinder Unit, A/C Head and Capstan Shaft are more important parts and pay an attention to clean them.

5-4-(1). P2 AND P3 POSTS ADJUSTMENT

Equipment required: Alignment Tape (PAL/SECAM: VFJ8125H3F) (NTSC: VFM8080HQFP) Post Adjustment Screwdriver (VFK0329)

(1) Connect the oscilloscope to the output of the Head Amp as shown in Fig. M6.

NOTE: To get a stable waveform of the Head Amp output (observation point TW3001 and TW2001 located on Main C.B.A.) on the oscilloscope, use the head switching pulse as a triggering signal as shown in Fig. M6.

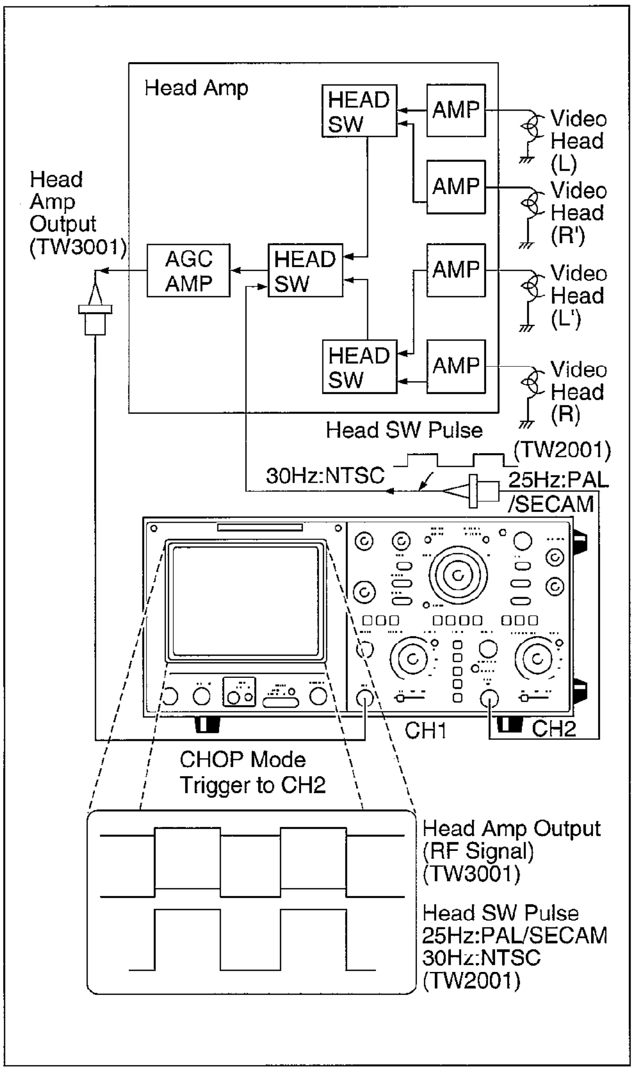

Head Amp
HEAD SW
AMP
Video Head (L)
Video Head (R')
Video Head (L')
Video Head (R)
Head Amp Output (TW3001)
AGC AMP
HEAD SW
AMP
HEAD SW
AMP
Head SW Pulse
(TW2001)
30Hz:NTSC
25Hz:PAL /SECAM
CH1
CH2
CHOP Mode Trigger to CH2
Head Amp Output (RF Signal) (TW3001)
Head SW Pulse 25Hz:PAL/SECAM 30Hz:NTSC (TW2001)

Fig. M6 Connect of Oscilloscope

(2) Playback the Alignment Tape.

(3) If the RF envelope appears like example "A" or "B" in Fig. M7, then adjustment of the tape guide post (P2: Entrance) is necessary.

(4) Adjust the tape guide post (P2) with the post adjustment screwdriver so that the RF envelope waveform at the entrance portion becomes flat as shown in Fig. M7 "C".

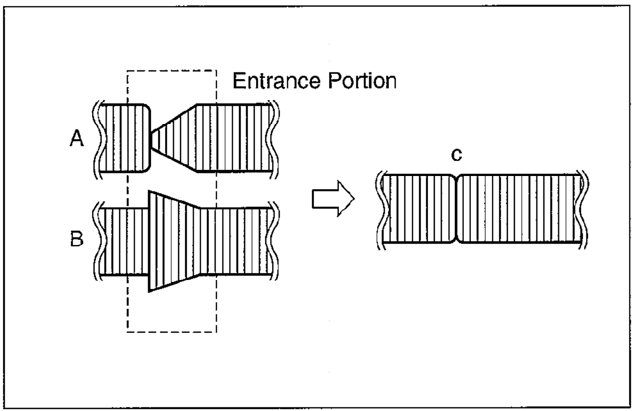

Entrance Portion
A
B
C

Fig. M7

(5) If the RF envelope appears like "D" or "E" in Fig. M8, then adjustment of the tape guide post (P3: Exit) is necessary.

(6) Adjust the tape guide post (P3) in the same manner as the P2 post so that the exit portion becomes flat as shown in Fig. M8 "F".

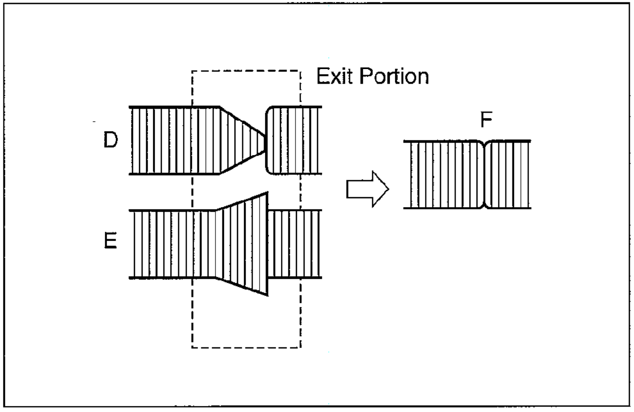

Exit Portion
D
E
F

Fig. M8

(7) Keep pressing the tracking up/down (∧ or ∨) buttons on the remote controller unit. The output envelope should vary nearly parallel with other condition as shown in Fig. M9.

(8) Set the tracking control into center fix position by pressing the tracking up/down (∧ and ∨) simultaneously and adjust for maximum RF envelope, whilst being as flat as possible.

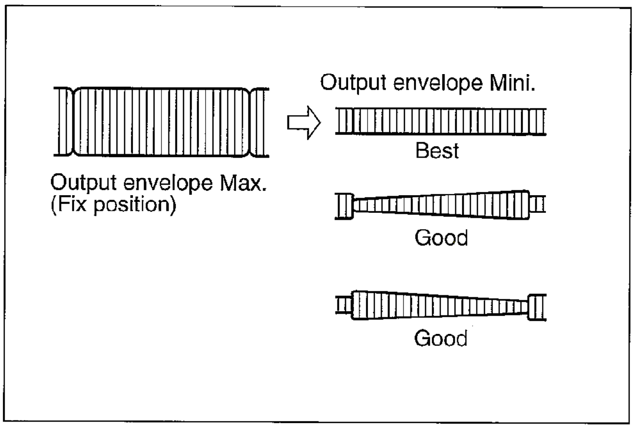


Fig. M9

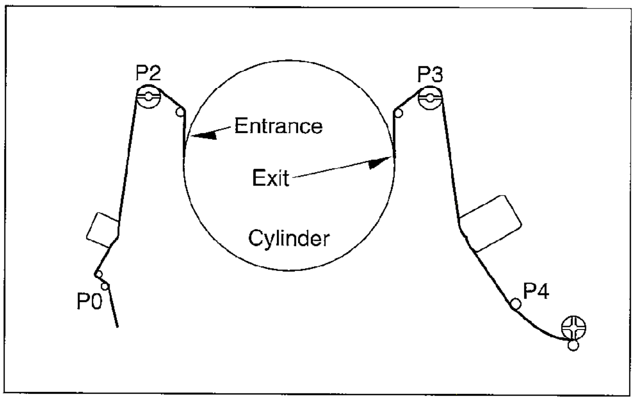


Fig. M10 Loading of Posts

5-4-(2). ADJUSTMENT OF P4 POST

(1) Install A/C Head on the Mechanism Chassis by one screw.

(2) Playback the Alignment Tape.

(3) Rotate the screw (A) or (B) until the wrinkle appears on the lower edge of tape at P4 Post.

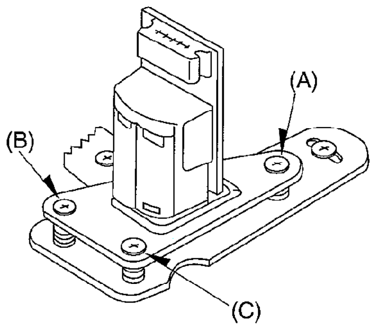
(4) Rotate the screw (A) or (B) until the wrinkle just disappears on the lower edge of tape at P4 Post.

(5) Connect the oscilloscope to audio output terminal.

(6) Rotate the screw (C) until audio signal is maximized.

NOTE: 1. The relation between the rotation direction of screws (A) and (B) and the condition of wrinkle on the lower edge at P4 Post as shown in Fig. M11.

2. Make sure that there is not the inclined wrinkle between P4 Post and Pinch Roller.



	SCREW (A)	SCREW (B)
So wrinkle appears on the lower edge of tape	COUNTER CLOCKWISE	CLOCKWISE
So wrinkle disappears on the lower edge of tape	CLOCKWISE	COUNTER CLOCKWISE

Fig. M11

5-4-(3). HEIGHT ADJUSTMENT OF A/C HEAD

<When moving the A/C Head up>

(1) Rotate the screw (A) counterclockwise until the wrinkle appears on the lower edge of tape at P4 Post.

(2) Rotate the screw (B) counterclockwise until the wrinkle just disappears on the lower edge of tape at P4 post.

(3) Rotate the screw (C) counterclockwise until the audio signal is maximized.

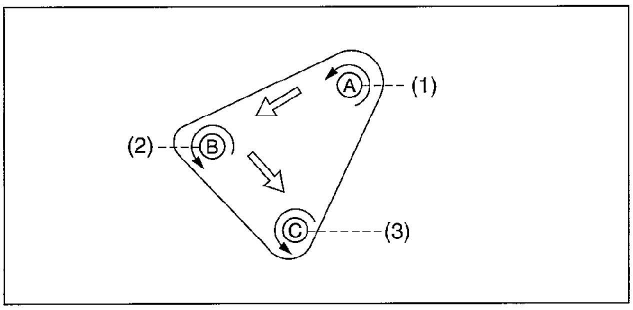


Fig. M12

<When moving the A/C Head down>

(1) Rotate the screw (B) clockwise until the wrinkle appears on the lower edge of tape at P4 Post.

(2) Rotate the screw (A) clockwise until the wrinkle just disappears on the lower edge of tape at P4 post.

(3) Rotate the screw (C) clockwise until the audio signal is maximized.

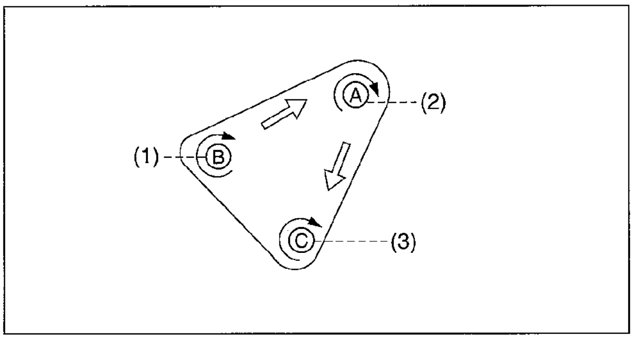


Fig. M13

5-4-(4). FINE-ADJUSTMENT OF A/C HEAD

(1) Connect the oscilloscope to the output of the Head Amp as shown in Fig. M6.

(2) Playback the Alignment Tape.

(3) Make sure that the condition of the wrinkle at P4 Post. If the condition of the wrinkle is out of specification, P4 Post adjustment has to be performed as follows.
Turn the screw (A) counterclockwise until the wrinkle appears on the lower edge of tape at P4 Post.
Turn the screw (A) clockwise until the wrinkle disappears on the lower edge of tape at P4 Post.

(4) Turn the screw (C) until the audio signal is maximized.

NOTE: Make sure that the audio output does not increase when push the upper and lower edges of tape around A/C Head.

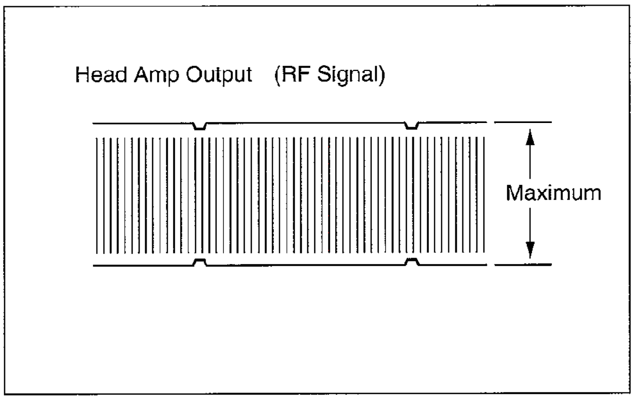


Fig. M14

5-4-(5). ADJUSTMENT OF X-VALUE (PREADJUSTMENT)

Equipment required:
Fine Adjustment Gear Drive (VFK0330)
Specification: Less than 15 msec.

(1) Connect the oscilloscope to the audio output and the video output. Both output signals should be fixed by the external trigger.

(2) Playback the Alignment Tape and set the tracking control into center fix position.

(3) Adjust A/C Head position by the Fine Adjustment Gear Driver (VFK0330) to meet the signal fault portion of the audio output and the video output signals (Less than 15 msec.).

(4) After meeting the signal fault portion, adjust A/C Head position by the Fine Adjustment Gear Driver (VFK0330) until the video envelope is maximized.

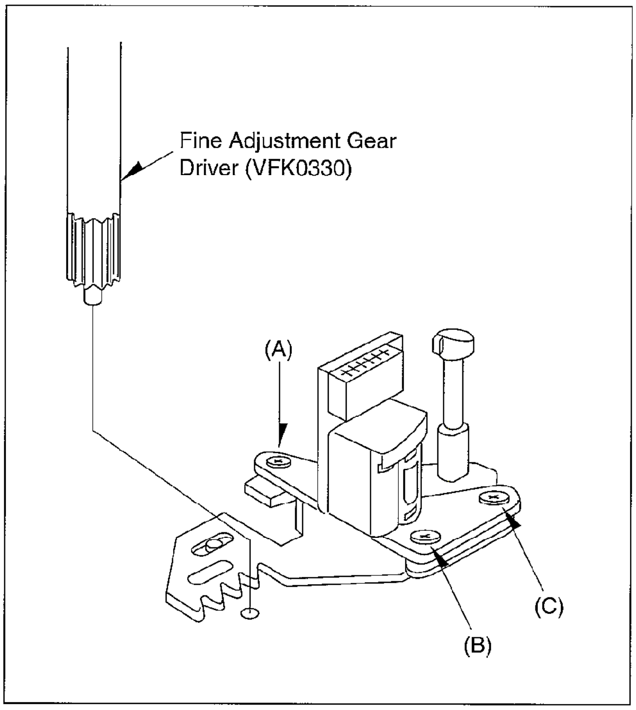


Fig. M15

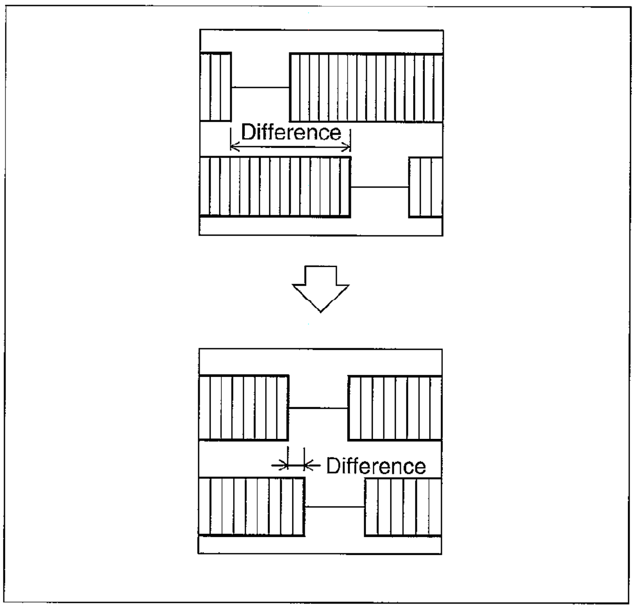


Fig. M16

5-4-(6). FINE-ADJUSTMENT OF X-VALUE

Equipment required:
Fine Adjustment Gear Drive (VFK0330)

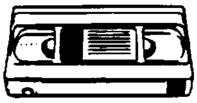
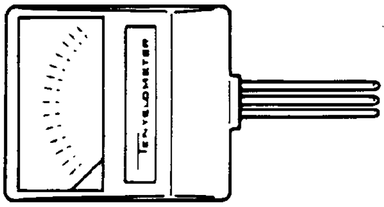
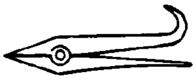
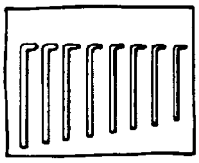
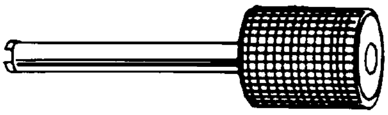
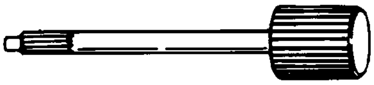
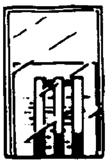
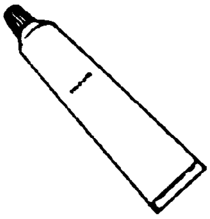
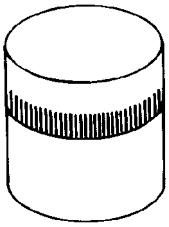
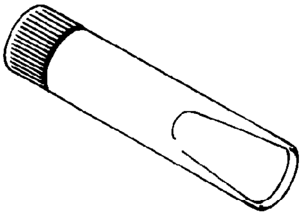
(1) Connect the oscilloscope to the audio output and the video output. Both output signals should be fixed by the external trigger.

(2) Playback the alignment tape and set the tracking control into center fix position.

(3) Adjust A/C Head position by the Fine adjustment Gear Driver (VFK0330) until the video envelope level is maximized at the tracking center fix position.

NOTE: During X-Value Fine Adjustment, in case the video envelope level became 0, Preadjustment of X-value should be adjusted again due to it is possibility to vary the X-value adjustment.

Servicing Fixtures & Tools

VFJ8125H3F PAL VHS Alignment Tape VFM8080HQFP NTSC VHS Alignment Tape 	VFK0132 Back Tension Meter (Tentelometer, Made in U.S.A.) 	VFK0335 Retaining Ring Remover (3mm/4mm) 
VFK0326 Hex. Wrench Set (0.7, 0.9, 1.2, 1.5, 1.6, 2.0, 2.4, 3.0mm) 	VFK0329 Post Adjustment Screwdriver 	VFK0330 Fine Adjustment Gear Driver 
VFK27 Hand Cleaning Stick 	VFK1024 Morlytone Grease 	VFK1298 Floil Grease 
VFK1301 Silicone Grease 		

6. SELF-TEST INDICATION DISPLAY

This VTR has a self-diagnosis and display function. If the VTR detects trouble during installation or during use, one of the following fault indication codes will automatically appear in the VTR display. Fault indication codes are displayed in the form of a single English letter followed by two numbrs, as for example "H01".

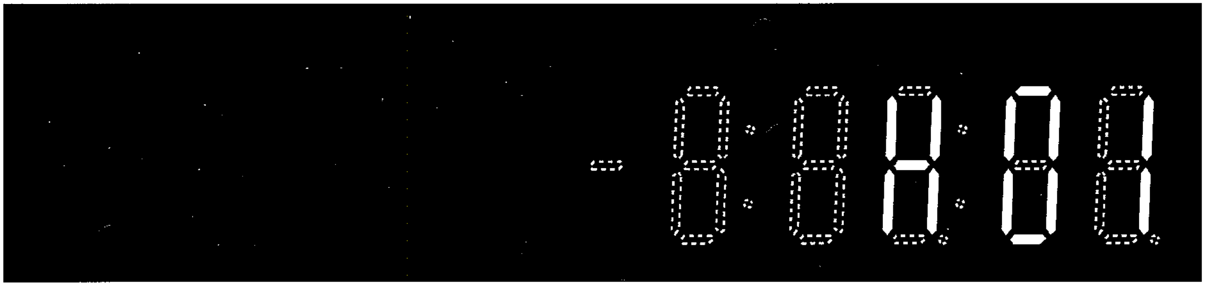
Note:
1. The indication "U" is displayed on the FIP while power remains on.
2. Otherwise, the indication "H" or "F" is displayed on the FIP, and the power is automatically turned off

   When the power is turned on again, the fault indication code will disappear and the unit will retrun to normal display mode (either clock or counter is displayed).
3. This fault indication code will be stored in the Timer microprocessor even with the AC plug disconnected.

   The two-digit number portion of the stored fault indication code can be redisplayed in the FIP's "second" display portion (the last 2 digits on the light) by placing the unit is Service Mode Number 2 when turning on Service Information Display as for example "01" or "02" etc.

   If a second error occurs, only the most recent error will be displayed and stored.
4. To erase the stored fault indication code data, Press FF, REW and EJECT buttons for 5 seconds.

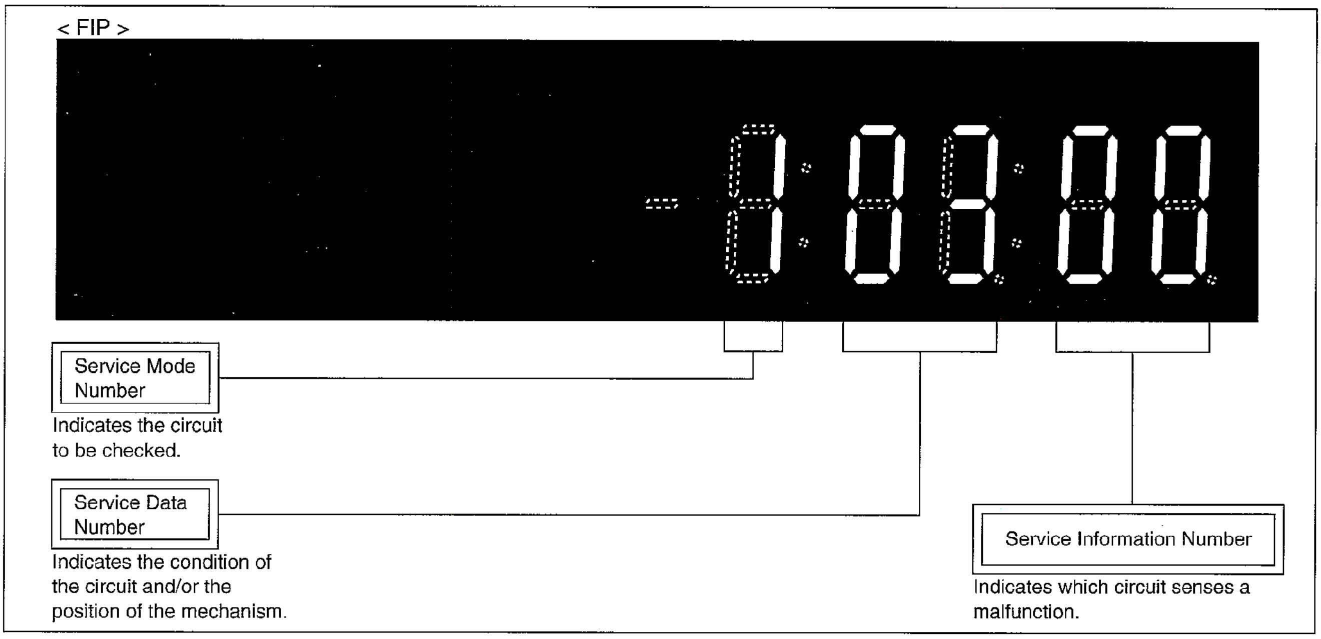
< FIP >



INDICATION	CAUSE	REMEDY/CHECK
U 10	Dew formation.	Wait until the indication disappears.
U 11	Cylinder clogs during the play mode.	Cleaning the cylinder.
H 01	After cylinder lock is detected, the cylinder does not start rotating again even after tape unloading.	Check the cylinder motor drive circuit.
H 02	Cassette tape is not wound up during tape unloading except Eject mode.	Check the capstan motor drive circuit.
F 03	Mechanism locks during mode transition except Eject mode.	1. Check the loading motor drive circuit. 2. Check the mechanism phase alignment. 3. Check the mode switch.
F 04	Mechanism locks during tape unloading.	1. Check the loading motor drive circuit. 2. Check the mechanism phase alignment.
F 05	Cassette tape is not wound up during tape unloading in Eject mode.	1. Check the capstan motor drive circuit. 2. Check the Supply/Take-up reel pulse.
F 06	Mechanism locks after tape unloading in Eject mode.	1. Check the loading motor drive circuit. 2. Check the mechanism phase alignment for cassette holder unit.
F 07	During recording mode recording signal is less than the normal condition.	Protection of the overcurrent flowing in transistor which produce the power supply for recording mode.
F 09	No communication of the main serial (between the system control and FIP driver control).	Check the system control microprocessor.

Fig. T1 Self-Test indication Display

7. SERVICE INFORMATION DISPLAY



Indicates the circuit to be checked.

Indicates the condition of the circuit and/or the position of the mechanism.

Indicates which circuit senses a malfunction.

Fig. D1 Service Information Display

7-1 Purpose of Service Information Display

This information aids trouble shooting by indicating the source of the malfunction. The service mode number & service data number are used by the technician during repair while the service information can be used by consumer to diagnose malfunctions allowing the technician to provide a more accurate repair cost estimate and reduce repair time.

7-2. Turning on Service Information Display

Press FF, REW and EJECT buttons simultaneously.

In the Service Information Display, there are four digits divided into 3 functions.

The first digit indicates which of the 7 service modes that the unit is currently in.

MODE 1: Checks tape protection circuit.
MODE 2: Checks tape transport mechanism.
MODE 3: Checks mode switching operation.
MODE 4: Checks control buttons.
MODE 5: Checks capstan motor.
MODE 6: Checks cylinder motor.
MODE 7: Checks loading/unloading operation.

The second and third digits are service data which indicate the condition of the circuit or mechanism being checked.

The forth digit is the service infromation display. it is to be used by the consumer to help determine the source of a malfunction. The service information display operates independently of the service modes and stores the fault indication in memory for as long as AC power is not supplied.

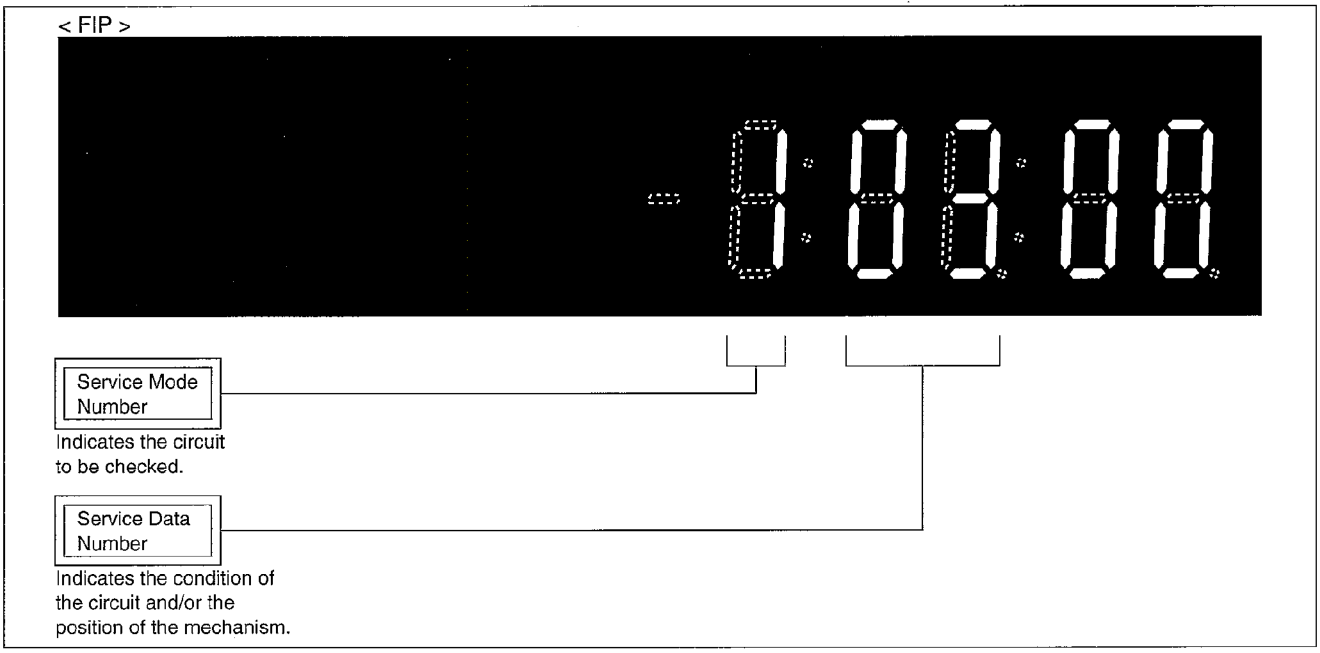

< FIP >
Service Mode Number
Indicates the circuit to be checked.
Service Data Number
Indicates the condition of the circuit and/or the position of the mechanism.

Fig. D2 Service Mode Number and Service Data Number on F.I.P.

7-3. Use of Service Modes

(1) Turn on Service information Display.

(2) To change Service Modes Press FF, REW and EJECT buttons simultaneously.

(3) Mode 0: Not used.

(4) Mode 1: Checks that the sensor LED, Supply & Take-up sensor circuits checks the circuits by blocking the light from the sensor LED to either or both Supply & Take-up Sensors. When the light is blocked to both sensors, “00” should be indicated on the service data number.

When the light is blocked to the supply sensor, “01” should be indicated.

(5) Mode 2: Checks the mode switch circuit while indicating mechanism position.

Service Data Numbers indicate the position of the mode switch and there by the mechanism position.

(6) Mode 3: Checks that mode switch circuit operations have been completed.

Service Data Number should indicate “00” after each mechanism operation is completed.

(7) Mode 4: Checks the operation circuit.
Indicates if SYSTEM CONTROL IC receives the operating commands from the mode buttons and/or remote controller.

(8) Mode 5: Checks the capstan motor circuit.
Indicates if the SYSTEM CONTROL IC has received the command to rotate the capstan motor.

(9) Mode 6: Checks the cylinder motor circuit.
SYSTEM CONTROL IC has received the command to rotate the cylinder motor.

(10) Mode 7: Checks the loading/unloading operation.
The loading motor rotates for loading operation when the "PLAY" button is pressed.
The loading motor rotates for unloading operation when the "STOP" button is pressed.
This mode can be displayed indefinitely until the OPERATE button is pressed.

<NOTE> Refer to Fig. D5 for details of Service Data Numbers.

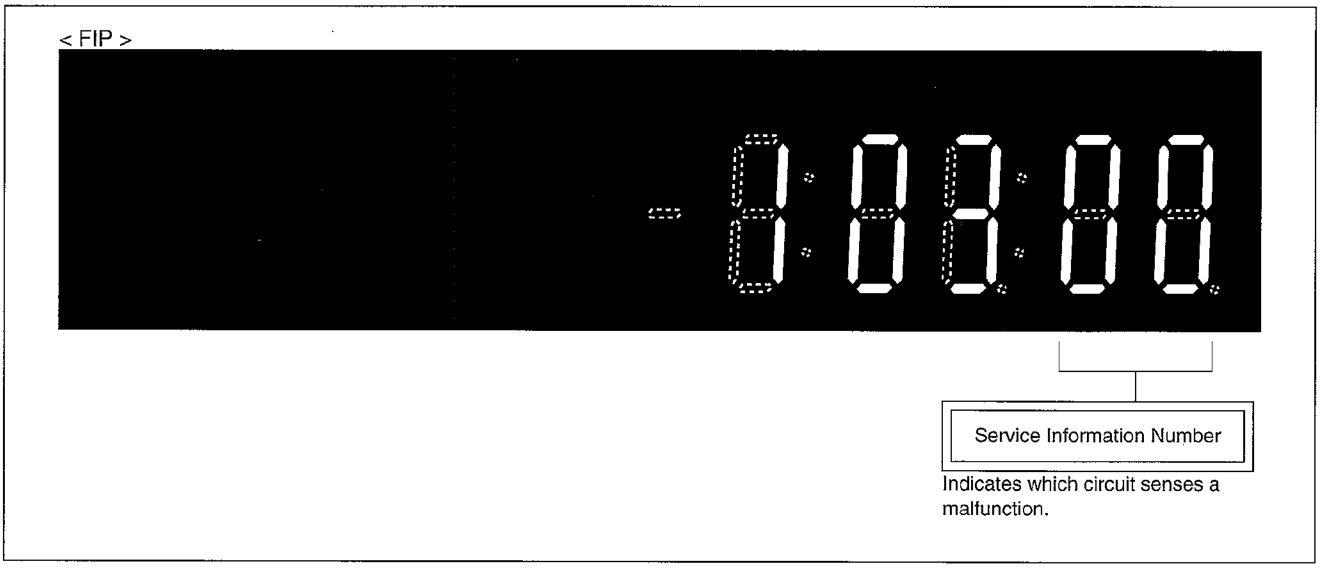

< FIP >
10300
Service Information Number
Indicates which circuit senses a malfunction.

Fig. D3 Service Information Number on F.I.P.

7-4. Service Information Number

Refer to Fig. D4 for details of Service Infromation Number.

NOTE: The Service Information Number display is independent of the service mode display. The Service Information Number will be stored as long as AC power is not supplied (If can be displayed in the Service Mode 2.)

If a second error occurs, only the most recent error will be displayed.

Service Information Number	Malfunction
00	Normal condition (No problem)
01	Cylinder stop
02	Tape reel stop
03	Stop at position other than 04 or 06
04	Stop during unloading
05	Fault capstan rotation
06	Stop during Cassette-in/Eject operation
09	Fault of the main serial communication (Between system control and FIP driver)

Fig. D4 Detail Service Information Number

7-5. Test Mode

When the test terminals are shorted during turning off condition, the following operation will be performed after AC power is applied. Test Mode Information will be displayed on FIP insted of linear counter.

(1) Power will be turned on automatically when AC power is applied.

(2) The direct operation of buttons are able to be performed.

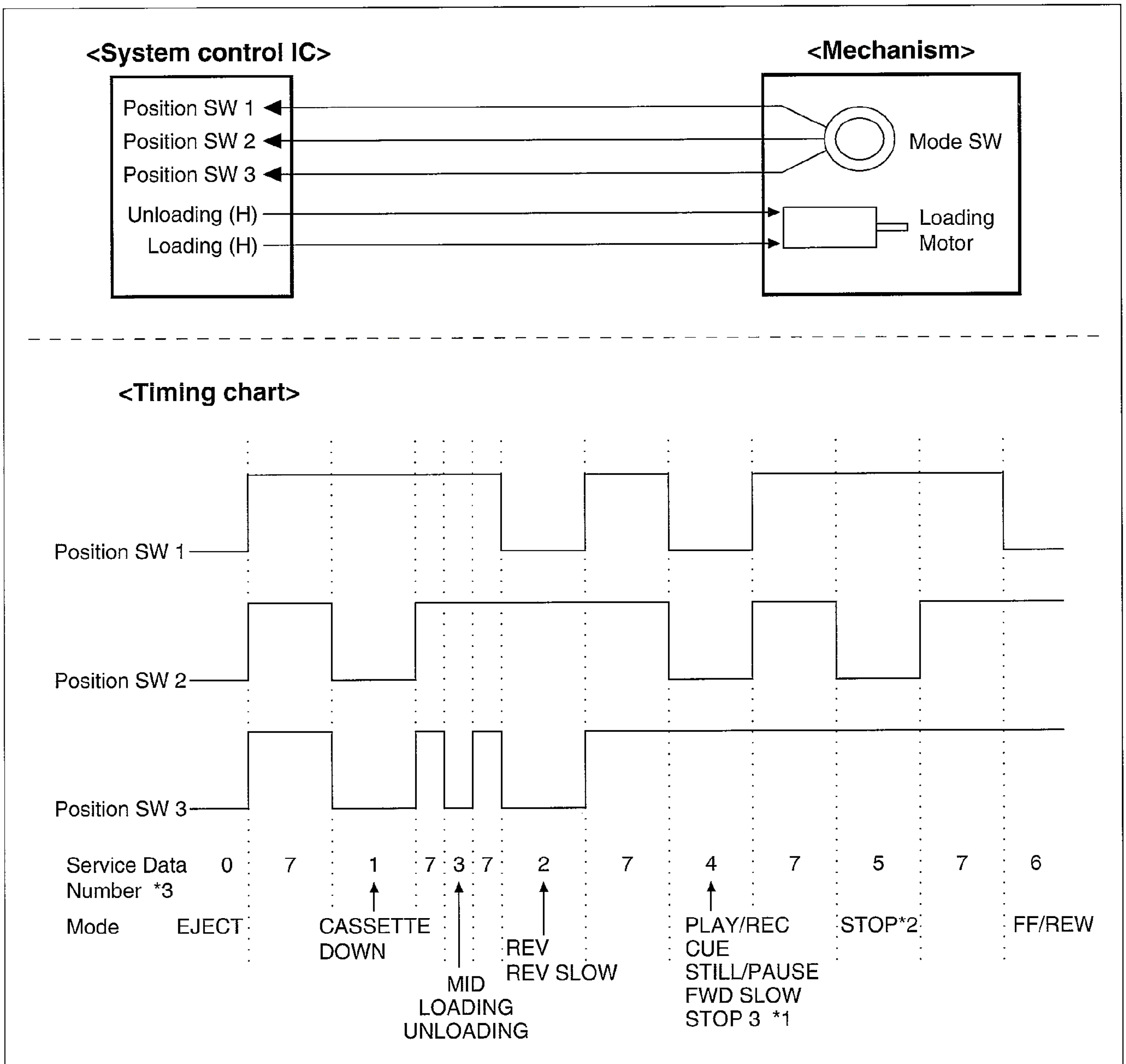
(Examle) PLAY⟷REC, REC⟷EJECT

Service Mode Number	Note for checking Service Data Numbers	Service Data Numbers	Indication	Remarks
1	—	00	No light detected at either sensor	Tape not required.
		01	Tape beginning Light to Supply photo sensor is blocked.	
		02	Tape end Light to Take-up photo sensor is blocked.	
		03	Light detected at both sensors.	
2	—	00	EJECT	Tape required *1. STOP3: Pintch roller is on Capstan motor shaft. *2. STOP: Pintch roller is off Capstan motor shaft.
		01	Cassette down	
		02	REV, REV SLOW	
		03	Loading/Unloading	
		04	PLAY, REC, STILL, PAUSE, CUE, FWD SLOW, STOP3*1	
		05	STOP*2	
		06	FF/REW	
		07	Intermediate position	
3	Disregard service data displayed until mechanism operation is completed. Then the display should indicate "00".	00	Any display other than "00" indicates a fault in the mode switch circuit or system.	Tape required.
4	Display only when the operating button is pressed.			Tape not required.
5	Left digit only, disregard Right digit display.	8 1 Left Right Digit Digit	8, 9, u, A, —, n, L and no display indicate that the Capstan motor "PLAY" command received by System control microprocessor.	Tape required. If a symbol other than those listed is displayed, a mulfunction in that circuit is indicated.
	Right digit only, disregard left digit dispaly.	8 7 Left Right Digit Digit	1, 2, 3, 4, 5, 6, 7 indicate that the Capstan motor "CUE, FF, FWD SLOW" commands received by system control microprocessor.	
	Right digit only, disregard left digit display.	8 — Left Right Digit Digit	8, 9, u, A, —, n, L and no display indicate that the Capstan motor "Reverse, REW, Reverse Slow" commands received by system control microprocessor.	
6	Left digit only, disregard Right digit display.	1 0 Left Right Digit Digit	1, 3, 5, 7, 9, A, n and no display indicate that the cylinder motor "ON" command received by system control microprocessor.	Tape required. If a symbol other than those listed is displayed, a mulfunction in that circuit is indicated.

Fig. D5 Service Data Display and Indication

7-6. Timing chart from Mode SW to System control IC

System control IC senses the mechanical position through the Mode SW.
Fig. D6 shows the timing for service mode number 2.


<System control IC>
<Mechanism>
Position SW 1
Position SW 2
Position SW 3
Unloading (H)
Loading (H)
Mode SW
Loading Motor
<Timing chart>
Position SW 1
Position SW 2
Position SW 3
Service Data Number *3
0
7
1
7
3
7
2
7
4
7
5
7
6
Mode
EJECT
CASSETTE DOWN
MID LOADING UNLOADING
REV
REV SLOW
PLAY/REC
CUE
STILL/PAUSE
FWD SLOW
STOP 3 *1
STOP*2
FF/REW

*1 : Stop 3 ;The Pinch roller is on the Capstan motor shaft.
*2 : Stop ;The Pinch roller is off the Capstan motor shaft.
*3 : Service Data Number; This is for Service Mode Number 2.

Fig. D6 Timing chart of Mode SW

8. SYSTEM CONTROL CIRCUIT & MECHANISM CONTROL CIRCUIT

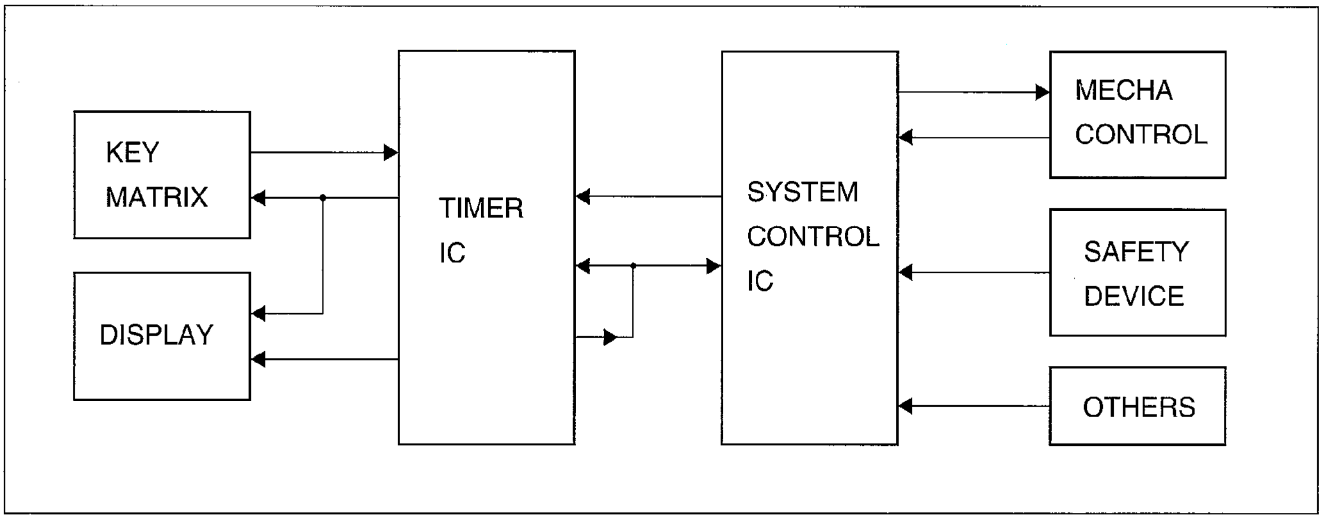


Fig. S1 Overall Block Diagram of System Control Circuit

8-1. STOP3 Specification

(1) The STOP3 is the playback stand-by mode.

(2) The unit is put into the STOP3 position after tape loading if the cassette tape does not have a clear leader tape.

(3) If the unit is in the STOP3 position when the power is switched off (included the Timer stand-by mode), the unit goes to the STOP position.

(4) If the cassette is in the unit when the power is turned on, the unit goes to the STOP3 position.

(5) When the cassette tape has clear leader tape, the unit is in loading mode after winding up the clear leader tape by Take-up reel at the cassette down position and the unit goes to STOP3 position.

8-2. Stand-by in the STOP3 position

(1) The unit goes to STOP3 position when the Stop mode is selected during the Play or Rec operations. The unit then loosens the tape tension by performing the Reverse Slow.
The Reverse Slow corresponds to the FG 40 pulses of the capstan (irrespective of SP/LP modes). The cylinder continues to rotate.

(2) After about 10 minutes in STOP3 mode, the unit shifts to the Stop position and the cylinder continues to rotate.

(3) After about 10 minutes in STOP mode, the unit stops the cylinder rotation.

8-3. Supply and Take-up Sensors

Supply and Take-up photo transistors are used to sense the beginning and end of a tape. The tape has transparent leaders at the beginning and end.

When these transparent leaders enter the tape transport path, they allow infrared light from the sensor LED to reach either one of the tape end sensors (photo-transistor).

If the Take-up end sensor detects the light, the microprocessor SYSTEM CONTROL IC places the VCR in the Stop mode and then performs a short Cue.

If the Supply end sensor is triggered, the microprocessor activates the Stop mode and the Rewind mode. The Rewind mode continues until the Take-up end sensor detects the end of the tape. The tape beginning is detects by a low signal at SYSTEM CONTROL IC Take-up photo terminal. The tape end is detected by a low signal at SYSTEM CONTROL IC Supply photo terminal.

If the light is received at both sensors at same time, the cassette is ejected.

<Operation after detecting the beginning and the end of tape>

Mode	Detection of the beginning	Detection of the end
Power on→off	Short CUE	Short REW
Cassette in	Short CUE	Short REW
Loading	Short CUE	Short REW
FF/CUE	——	Auto REW
REW/REV	Short CUE	——
PLAY, REC	——	Auto REW
SLOW	——	Auto REW
Timer REC	——	Power off

Both ends of tape detection (tape cut, no cassette),

(1) Cassette in: The cassette tape is ejected

(2) Other mode: The unit goes to Stop mode and it is impossible to operate except EJECT key.

(3) Timer REC: Power is turned off after short CUE is performed

8-4. Safety Tab Switch

A recorded video cassette can be protected against accidental erasure by breaking off the tab on the cassette. The cassette can now only be used for playback. To be able to record on the cassette, cover the hole with adhesive tape. If the safety tab on the cassette has been removed, Safety Tab Switch is off (open) and high signal is supplied to SYSTEM CONTROL IC Safety Tab terminal. The SYSTEM CONTROL IC will not go into the recording mode and automatically places the VCR in the playback mode.

8-5 Dew Sensor

If excessive moisture or condensation is present inside the machine (an internal humidity of more than 98%) the unit will stop if running. Until the moisture level decreases only the Eject mode will operate. To sense the humidity, a dew sensor is used. The sensor is a special variable resistor which change resistance with ambient humidity.

The sensor ranges in resistance from about 5K ohm at 90% humidity to about 50K omh at 98% humidity. Normally, the voltage across the sensor is low because of its low resistance.

But if moisture condenses inside the unit, the SYSTEM CONTROL IC voltage of Dew terminal increases to indicate a Dew condition.

Tape	Mode	Dew sensor ON	Dew sensor OFF
OUT	Power	Compulsory Power on	Power off
	Dew indication	Indicate “d” and “U10”	No indication
	Cylinder	Rotating *1	Stop
	Key operation	Not possible *2	Possible
	Cassette in	Immediately a cassette is ejected after it goes to cassette down position.	Possible
IN	Power	Compulsory Power on	Power off
	Dew indication	Indication “d” and “U10”	No indication
	Cylinder	Rotating *1	Stop
	Key operation	Not possible *2	Possible
	Cassette condition	A cassette goes to down position and is in stand-by mode.	Stand-by mode at STOP3 position.

*1: When the cylinder locks in dew mode, it will be released until dew sensor is truned off.

*2: The keys which do not relate to the tape running operation, are able to be used.

Dew sensor on:	During Dew formation is detected and 80 minutes after completion of Dew detection.
Dew sensor off:	80 minutes later after copmletion of Dew detection.

8-6. Setting time for each mode

The time is set on each mode in order to protect tape and capstan driver. When the setting time is over, the mode is gone to the next mode.

Mode	Setting time	Switching mode
STILL, PAUSE	Approximately 5 minutes	STOP
CUE/REV lock	Approximately 10 minutes	PLAY
SLOW, F ADV	Approximately 10 minutes	STOP

8-7. Operation of short CUE

Short CUE stops when the Take-up photo sensor detects the black portion of the tape.

However its sensor does not detect the black portion within 4.0±1.0 sec., the mode except Power on/off and Eject modes will be abe to be operated after the unit stops. This is same as the timer over oeration of the reel lock.

8-8. Loading/Unloading Mechanism lock

Loading and unloading times are set, and in case the mechanism locks during loading or unloading operation within the defined time, the unit detects the mechanism lock and loading motor reverses or stops.

Loading operation lock:	Cassette tape is unloaded and ejected within 5 seconds.
Unloading operation lock:	Power is truned off within 5 seconds.

8-9. Cassette loading/unloading lock

(1) Mechanism locks during the cassette in operation.

① Cassette tape is ejected approximately 2 seconds later when the mechanism locks during the cassette in operation.

② In case mechanism locks during eject operation, cassette tape is inserted and power is turned off approximately 2 seconds later.

③ When Mechanism locks during cassette in operation, power is turned off approximately 2 seconds.

In case the mechanism lock is released on the way and cassette is ejected, the unit continues the normal operation.

(2) Mechanism locks during the eject operation.

① Cassette tape goes to cassette down position approximately 2 seconds later and power is turned off when mechanism locks during eject operation.

② Mechanism locks during cassette down operation, power is turned off.

8-10. Reel lock operation

When the Suuply or Take-up reel mechanism locks during the tape running, the following operation is performed.

FF/REW :	Unloading and loading. The unit goes to CUE/REV mode.
PLAY/CUE/REC :	Unloading till the cassette down position and loading. The unit goes to STOP3 position.
RVS PLAY/REV :	Unloading till the cassette down position and loading. The unit goes to STOP3 position.

The reel pulse cycle is started to count after the mechanism mode is fixed.

In case the counted pulse cycle exceeds the defined value, the unit goes to STOP mode due to judge that lock of reel mechanism is detected.

<The value of reel lock detection time>

NTSC/SP mode

Mode	Speed (Ratio)	Time (S)
PLAY	±1	3.5
CUE/REV	±5	1.6

PAL/SP mode

Mode	Speed (Ratio)	Time (S)
PLAY	±1	3.5
CUE/REV	±5	1.6

The reel lock time in FF/REW mode is 800msec.

When the tape speed is less than 0.23m/s, reel lock is judged.

8-11. Cylinder lock

<Start rotation>

When the cylinder neither start rotating nor go to the stability rotation within 5 seconds, it is unloading under keeping the mode. In case the cylinder starts operating and stability rotation, the mechanism goes to STOP3 position.

If it is not possible, Power is turned off and cylinder trouble "H01" is displayed.

<During rotation>

The head switching pulse is supplied to the cylinder when the cylinder starts the stable revolution. In case the head switching pulse comes to the cylinder within 0.5 seconds, the cylinder lock is judged and the following operation is activated.

Timer REC: Power off

PLAY, REC: STOP

8-12. Mode transition

The relation between the present mode and operation key is shown in the following table.

PRESET MODE	OPERATION KEY							
	P SW	EJECT	STOP	REW	FF	PLAY	PAUSE	REC
P-OFF	P-ON	EJECT	——	——	——	PLAY	——	——
EJECT	P-OFF	——	——	——	——	——	——	——
STOP	P-OFF	EJECT	——	REW	FF	PLAY	——	REC
REW	P-OFF	EJECT	STOP	REV	FF	PLAY	——	——
FF	P-OFF	EJECT	STOP	REW	CUE	PLAY	——	——
REV	P-OFF	EJECT	STOP	——	CUE	PLAY	STILL	——
CUE	P-OFF	EJECT	STOP	REV	——	PLAY	STILL	——
PLAY	P-OFF	EJECT	STOP	REV	CUE	——	STILL	——
STILL	P-OFF	EJECT	STOP	REV	CUE	PLAY	PLAY	REC PS
REC	P-OFF	——	STOP	——	——	——	REC PS	*1
REC/PS	P-OFF	——	STOP	——	——	——	REC	——

*1: VISS WRITE

Pressing two keys simultaneously, the key operation is going to be ineffective.

In case the unit goes to CUE/REV lock mode by pressing FF/REW key lightly during Play mode, CUE/REV mode will be returned previous mode when FF/REW key is pressed more than 0.7 seconds.

8-13. Power on reset

When the power is turned on, the unit is going to reset and the following datas are cleared.

(1) Position switch data
(2) Operation mode data
(3) Prohibition flags

In case the mechanism is in cassette down position, tape slag is removed as the initial operation and the unit goes to STOP3 position.

8-14. Linear time counter operation

The counter value will be gone up/down by counting control pulse. As for NTSC system during Play/Rec mode, counter value goes up/down every 30 pulses. As for PAL system during Play/Rec mode, counter value goes up/down every 25 pulses.

8-15. Tape speed in CUE/REV mode

	NTSC	PAL
Standard	9 times	11 times

8-16. Automatic functions

(1) Automatic Power on

① Under power off, when a cassette tape is inserted, power is turned on automatically and cassette tape is loaded.

② Under power off and a cassette tape has been inserted, when PLAY key is pressed, power is turned on automatically and goes to PLAY mode.

(2) Automatic play

When a cassette tape removed safety tab is loaded, the mode goes into Play mode.

(3) Automatic rewind

When tape running is reached to the end of tape, automatically goes to Rew mode and stops when tape running will be reached to the beginning of tape.

In case of Timer recording, short Rew is performed for 2 seconds and power is turned off when tape running is reached to the end of tape.

(4) Power off and Eject

Under power off and a cassette tape has been inserted, when Eject key is pressed, a cassette tape is ejected and power is turned off

8-17. CUE/REV lock mode

When FF/REW key is pressed lightly (less than 0.7 seconds) during Play mode, unit goes into CUE/REV mode. To release CUE/REV mode, FF/REW key should be pressed more than 0.7 seconds.

8-18. FR (Forward/Reverse) search mode

When FF/REW key is pressed during FF/REW mode, unit goes into CUE/REV mode.

To release CUE/REV mode, FF/REW key have to be pressed.

8-19 FF/REW speed

Maximum tape speed is approximately 3.0 m/s during the stable running.

8-20 FF/REW time

The tape running from the beginning to the end of T-120 type (E-180 type) cassette tape is able to be completed within 150 seconds.

Panasonic

MATSUSHITA ELECTRIC

Printed in Japan